



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>

New Books and New Editions, 1883.

ACTION SONGS FOR CHILDREN. Words and

Music. By J. CLIFFT WADE, Author of "Songs for Schools," &c. Parts I., and II. Price 6d. each. The words only of these songs are published separately. Price 3s. per hundred.

CONTENTS.

FIRST SERIES

- 1 Showers and Flowers.
- 2 Little Men.
- 3 Tommy's Toilet.
- 4 The Little Fiddler.
- 5 The Plum Cake.
- 6 The Village Queen.
- 7 The Holiday.
- 8 Our Village Band.
- 9 The Little Roamer.
- 10 The Lazy Old Cuckoo.
- 11 Little Haymakers.
- 12 Dolly Deene's Wedding.
- 13 The Kitchen Door.
- 14 See the Happy Children.
- 15 See our Banners.
- 16 The Blacksmith.
- 17 The Thrashing Machine.
- 18 Cobbler, Cobbler, Make Me a Boot.
- 19 The Letter.
- 20 Stone Breaking.
- 21 The Jug and the Glass.
- 22 The Earth, the Air, and the Sea.
- 23 Sunbeams and Shadows.
- 24 A Peep at the Glass.

SECOND SERIES.

- 1 O Spread thy Sail.
- 2 The Hidden Letter.
- 3 The Reapers' Good Morning.
- 4 The Winds.
- 5 The Breakfast Bell.
- 6 The Wind Blows High, the
Wind Blows Low.
- 7 The Travellers.
- 8 In Narrow Cell.
- 9 The Morning Ride.
- 10 Beautiful Summer.
- 11 Bells.
- 12 Forward! Forward!
- 13 Little Laundresses.
- 14 The Builders.
- 15 Marching Song.
- 16 The Rainy Day.
- 17 Drill Song.
- 18 Untidy Tim.
- 19 Our Village Band.
- 20 The Barber.
- 21 The Course of the Sun.
- 22 Drill Song.
- 23 A Dairymaid am I.
- 24 The Teacher is a King.
- 25 Come for a Ramble.

"This little book of songs we can highly recommend to all who are engaged in the teaching of young children. . . . The composer has often been very successful in the combination of the words and the music. The appropriate action which is to illustrate some of the songs, is indicated in the text."—*The Educational Times*, August 1st, 1882.

"Mr. Wade's melodies are fairly original, and are pleasant and attractive. This book is prepared for schools where part-singing is taught, and will be found useful in the upper divisions under the new code."—*The Practical Teacher*, August, 1883.

"This is the second series, and we must congratulate Mr. Wade on both words and music. They form a very good collection of action songs, and are carefully written. A pianoforte part is added."—*The Schoolmaster*, July 21st, 1883.

BOTANY FOR SCHOOLS AND SCIENCE

CLASSES.

and enlarge

1. Second Edition, revised

JOHN HEYWOOD

ster; and 11, Paternoster

New Books and New Editions, 1883.

ENGLISH GRAMMAR AND ANALYSIS OF

SENTENCES. Adapted to the Mundella Code. By J. C. WRIGHT.

STANDARDS II. and III. 24pp. Sewed. Each 1d.

" IV. to VII, 82pp. " " 2d.

ENGLISH GRAMMAR AND ANALYSIS OF

SENTENCES. Adapted to the Mundella Code. By J. C. WRIGHT.

F^ocap. 8vo, 180pp., cloth. Complete, 1s. 6d.

"One more addition, and by no means a bad one, to the many English grammars already in existence. The author has evidently taken great pains to make the series progressive, and his efforts have not been unsuccessful. . . . His explanations are clear and forcible; the examples he gives are copious, and thoroughly explanatory of the rules they are intended to illustrate. . . . Some of the chapters in the higher standards are specially readable. We give the whole series our cordial recommendation."—*Governess*, December, 1882.

"These little books have been specially drawn up for the New Code of 1882. They are very simple in their construction, and contain numerous exercises. After having carefully worked these exercises and learned by heart the matter in the text, no child ought to fail in the inspector's examinations in the New Code."—*National Schoolmaster*, September, 1882.

"In six parts, according to the various School Standards, adapted to the New Code."—*Bookseller*, August, 1882.

"Will prove of considerable service in elementary schools. Each part contains from 80 to 119 exercises in parsing, analysis, and composition, and is very fairly suited to its particular standard."—*School Guardian*, July 29th, 1882.

ENGLISH HISTORY DATES UPON A NEW

PLAN, from B.C. 450 to A.D. 1882. By W. J. HASSALL. For Use in Schools and Colleges. New Edition; revised. Price 3d. Sewed.

"We can best review this little book by briefly describing the system pursued in it. Its chief feature is that between any two dates is left a clear space proportionate to the number of years that have passed by. This calls the eye into play, and conveys to the mind a clearer idea of the lapse of time than the old method of simply writing down the events and dates in a column without any regard to the time between them."—*The Practical Teacher*, for May, 1883.

"This collection of dates is arranged 'upon a new plan' a very difficult thing to do in these days when tabular statements have been so much varied in the interests of the students. It consists in showing to the eye the time between any two events by a blank space 'proportionate to the number of years passed by.'"—*The Schoolmaster*, May 20th, 1883.

"The spaces between the different events are proportionate to the actual number of intervening years."—*School Guardian*, June 30th, 1883.

"The plan adopted in this little book may be thus briefly described. In order to give a clearer idea of the lapse of time between the various events than can be conveyed by the usual plan of simply writing down the lists of years in a column (without any regard to the time between any two events), in this book the space between two dates is proportionate to the number of years passed by. Also every fresh century commences a page, and the contents of each page may be roughly divided into three columns. In the first, every tenth year is mentioned at equal distances apart; in the second is recorded the chief events in each decade, with their dates, and in the third occur the names of the contemporary celebrities. This description will enable the reader to form an idea of the merit of this little book. It is well and clearly printed."—*The Governess*, April 7th, 1883.

JOHN HEYWOOD, Deansgate and Ridgefield, Manchester; and 11, Paternoster Buildings, London.

New Books and New Editions, 1883.

LESSONS IN ENGLISH HISTORY. By J. R.

YARNOLD. The Two Parts in One. Forming a Complete Summary of English History from the Earliest Period to the Present Time—1882. New Edition. F^{cap}. 8vo, 172pp., cloth. Price 1s.

"This small volume consists of a collection of short numbered paragraphs referring to the chief events in English history, on each one of which questions may well be based. . . . The book is clearly printed, and well brought up to date." *The Governess*, April 7th, 1883.

"A new arrangement for the rapid learning of ancient and modern history. Each lesson consists of a series of short paragraphs."—*The Bookseller*, February, 1883.

"In this little book the history of England is thrown into a series of short paragraphs varying in length from about two lines to ten, and each containing some fact or facts it is important should be remembered, the idea being, we suppose, to render it more easy for the pupil to commit the facts therein mentioned to memory, and for the teacher to frame questions on the same. . . . We have no hesitation in saying that, supplemented by good oral instruction, and used in connection with the Genealogical and Chronological Chart compiled by the same author, this little book may be of service."—*The Practical Teacher*, May, 1883.

"The tables scattered throughout the book will be found very useful, and the poetical summary of the kings and queens, with their distinguishing characteristics will help many little people to remember their dates."—*The Publisher's Circular* March 15th, 1883.

LINEAR PERSPECTIVE IN THEORY AND

PRACTICE. Being a Complete and Comprehensive Explanation of the Subject, with 15 Plates and 90 Exercises. Specially designed for Private Study and Self-teaching. By W. CHITTY. F^{cap} folio, sewed, 1s. 6d.

MECHANICS FOR JUNIOR STUDENTS;

including Hydrostatics and Pneumatics. By W. J. BROWNE, M.A. London. Sixth Edition, revised and enlarged. F^{cap}. 8vo, 208pp. Price 2s. 6d.

"This little book has just reached a sixth edition, and has again been revised and enlarged. It is one of the best and cheapest manuals that we have seen on the subject."—*School Guardian*, June 9th, 1883.

"This is a sixth and enlarged edition of this now well-established work, and is fully brought up to the present state of knowledge. In preparing the new edition the author has had the assistance of the Rev. J. Hamlyn Hill, of Manchester, and the work is now more useful than ever."—*Bookseller*, May 4th, 1883.

"We have noticed this book before in some of the previous editions, and need only point out here how widely useful it has been found, by the fact of a sixth edition being called for. The present edition has been carefully revised and enlarged, and is now suitable 'as a general text book of elementary mechanics, and embraces the course for the Science and Art Department, for the junior examinations of the Universities, and for various Civil Service examinations, as well as for the examination of teachers and pupils of the Elementary Schools of Great Britain and Ireland.'"—*National Schoolmaster*, for June, 1883.

JOHN HEYWOOD, Deansgate and Ridgefield, Manchester; and 11, Paternoster Buildings, London.

(MUNDELLA CODE, 1883).

JOHN HEYWOOD'S

COMPLETE SERIES OF

HOME LESSON BOOKS

For Use in Public Elementary Schools.

IN SEVEN BOOKS, CORRESPONDING TO THE STANDARDS OF
THE MUNDELLA CODE.

BOOK VII. FOR STANDARD VII.,

Containing Lessons in Holy Scripture, Moral Poetry, Arithmetic, English
(Repetition, Grammar, Analysis, Parsing, Composition, Paraphrasing,
and Latin Prefixes, Affixes, and Roots, &c.), Geography,
and Map Drawing.

BY

ALFONZO GARDINER,

Author of "Sound, Light, and Heat," "Magnetism and Electricity," "John Heywood's
Complete Series of Home Lesson Books," "John Heywood's Parsing and Analysis
Tables," "The Complete Standard Examination Guide," "Gardiner's
Inspector's Arithmetical Test Cards," "How to Draw a Map,"
"The Explanatory Geography," "How to Teach the
Method of Unity."

JOHN HEYWOOD,
DEANSGATE AND RIDGEFIELD, MANCHESTER;
AND 11, PATERNOSTER BUILDINGS,
LONDON.
1884.

39835. f. 31

SCHEDULE I, MUNDELLA CODE (1883), STANDARD VII.

READING.*—To read a passage from Shakespeare or Milton, or from some other standard author, or from a History of England.

"In Standards V., VI., and VII., books of extracts from standard authors may be taken, though such works as 'Robinson Crusoe,' Voyages and Travels, or Biographies of Eminent Men (if of suitable length) are to be preferred."—*Instructions to Inspectors*, par. 7.

WRITING.—A theme or letter. Composition, spelling, and handwriting to be considered. Note books and exercise books to be shown.

"In Standard IV., and those above it, writing should be running, free, and symmetrical, as well as legible and clear."—*Instructions*, par. 9.

ARITHMETIC.†—Averages, percentages, discount, stocks.

Short exercises in Mental Arithmetic may be given in the examination of all the Standards. These should not involve large numbers, should from the first deal with concrete as well as abstract quantities, and should be preparatory to the work of the next higher Standard. See also *Instructions*, par. 13.

SCHEDULE II.—CLASS SUBJECTS.—ART. 109 (f).

ENGLISH.—To recite 150 lines from Shakespeare or Milton, or some other standard author, and to explain the words and allusions.

To analyse sentences, and to know prefixes and terminations generally.

GEOGRAPHY.—The Ocean. Currents and tides. General arrangement of the Planetary System. The Phases of the Moon.

[In Standards V., VI., and VII., maps and diagrams may be required to illustrate the answers given.]

[As to the grouping of Standards IV., V., VI., and VII., see note at foot of Schedule II. and *Instructions*, par. 16.]

* Reading with intelligence will be required in all the Standards, and increased fluency and expression in successive years. Two sets of reading books must be provided for Standards I. and II.; and three, one of which should relate to English History, for each Standard above the second. The inspector may examine from any of the books in use in the Standard. The intelligence of the reading will be tested partly by questions on the meaning of what is read.

† The work of girls will be judged more leniently than that of boys. The Inspector may examine scholars in the work of any Standard lower than that in which they are presented.

New and Corrected Edition.—**Answers to the Arithmetical Examples in John Heywood's Home Lesson Books.** In Seven Books, corresponding to the Standards, 2d. each.

PREFACE TO STANDARD VII.

THIS book, for Standard VII., completes the series, and contains all the requirements of the Mundella Code (1883) that can possibly be provided for. No lessons are given in *History* for the reason stated in Standard V.

Four lessons are given every Tuesday morning in *Geography*. The one marked (A) is the course for Standard IV., (B) that for Standard V., (C) that for Standard VI., and (D) that for Standard VII. Sets (A), (B), and (C) are all inserted in the books for Standards IV., V., and VI., so that full provision is made for the grouping of Standards. (*See footnote, Schedule II., and Art. 109f, ii. and iii.*)

The teacher must bear in mind that all the Geography lessons, and especially those prepared for Standard VII., are little more than skeletons. Currents, tides, phases of the moon, &c., will all want careful explanation, and should be amply illustrated by diagrams and simple apparatus. *Every lesson throughout the series should be done at school before it is required to be done at home.* If neatly written in an exercise book the Geography lessons can be shown to the Inspector when he asks for "note books and exercise books to be shown" (*Schedule I., Standard VII., Writing*).

In *Arithmetic* the lessons follow the order of *Schedule I.*, with miscellaneous exercises on the work of Standards V. and VI. in the latter part of each lesson (generally sums 4 and 5), thus providing for the footnote to the Schedule—"The Inspector may examine scholars in the work of any Standard lower than that in which they are presented."

The order of lessons is as follows :—

Averages	Lesson 3 to Lesson 20.
Percentages.....	" 23 " 50.
Discount (trade).....	" 53 " 70.
Present worth	" 73 " 90.
True discount.....	" 93 " 100.
Stocks	" 103 " 160.
General revision.....	" 160 " end.

A considerable number of the sums (all marked with an asterisk) are fully worked out in the Author's "*Method of Unity*."*

It is probable that the five sums set in each lesson, along with the other work given for Wednesday and Friday, will be found too much for any but clever lads. One or two sums can however be omitted at the discretion of the teacher.

In *English* an effort has been made to cover the immense ground which the Code requirements necessitate being gone over. On

* "How to Teach the Method of Unity," by ALFONZO GARDINER. Third Edition. Price 1s. 6d. JOHN HEYWOOD, Manchester and London.

Wednesdays the *Prefixes* and a selection of *Latin Roots* given in Standard VI. have to be revised, and on Thursdays the *Affixes* and a further selection of *Latin Roots* have to be learnt. The words included in these lists are such as enter into the composition of many of our common words, and which, by means of the *Prefixes* and *Affixes*, will form numerous exercises in word-building.

As the lessons for Wednesdays, Thursdays, and Fridays are necessarily very long, it is suggested that the *Analysis*, *Parsing*, *Word-building*, and *Paraphrasing* be always done in school along with the teacher on Thursday, and that the *Prefixes*, *Affixes*, *Roots*, and *Composition* be done at home on Wednesday evening, to be brought to school on Thursday morning. The *Prefixes* and *Affixes* are repeated on pages 172—6.

For *Repetition* the following pieces are provided, each with very full notes.

Shakespeare.

Mark Antony's Oration, 105 *lines*. Lessons 1, 6, 11, 16, 21, 26, 31, 36, 41.

Trial Scene—Merchant of Venice, 273 *lines*.—Lessons 56, 61, 66, 71, 76, 81, 86, 91, 96, 101, 106, 111, 116, 121, 126, 131, 136, 141, 146, 151, 156, 161, 166.

Milton.

From Lycidas, 17 *lines*. Lesson 46.

Sonnet on his Blindness, 14 *lines*. Lesson 51.

From Comus, 14 *lines*. Lesson 171.

On the Late Massacre, 14 *lines*. Lesson 176.

Macaulay.

Horatius, 199 *lines*. Lessons 181, 186, 191, 196, 201, 206, and remainder as in Appendix.

For Monday mornings one of the three maps given, corresponding to the sets of lessons in Geography (A), (B), or (C), is to be prepared and shown. (*See Schedule II. Note to Geography, Standards V., VI., and VII.*) These maps may, however, be prepared and shown on any day the teacher thinks best, but Monday is generally a convenient day.

This series is in a great measure a compilation. The author begs to thank the numerous teachers whose hints and suggestions have tended to make the books more useful and suitable for school work. Many well-known school books have been laid under contribution, and due acknowledgment is here given of the use which has been made of the labours of others. Several of the extracts for Grammar and Repetition are inserted by leave of the publishers, Messrs. Longmans especially deserving thanks for permission readily granted to make use of Lord Macaulay's works.

ALFONZO GARDINER.

Little Holbeck Board Schools,
Leeds, January, 1884.

HOME LESSONS—STANDARD VII.

FIRST WEEK.

Lesson 1.—Monday Morning. Learn.

PSALM CXIX., Verses 1—8; OR ELSE LEARN—

MARK ANTONY'S¹ ORATION OVER THE DEAD BODY OF JULIUS CÆSAR.

Shakespeare's "Julius Cæsar." Act III. Scene II.

Friends, Romans, countrymen ! *lend me your ears ;*²

I come to bury Cæsar, not to praise him.

The *evil*³ that men do *lives*⁴ after them ;

The good is oft *in-ter-red*⁵ with their bones ;

(5) So let it be with Cæsar. The noble Brutus⁶

Hath told you Cæsar was *ambitious* :⁷

If it were so,⁸ it was a *grievous fault* ;⁹

And grievously hath Cæsar *answered it*.¹⁰

Here, under leave of Brutus, and the rest,¹¹

(10) (For Brutus is an honourable man ;

So are they all, all honourable men) ;

Come I to speak *in*¹² Cæsar's funeral.¹³

1. Cæsar was the leader of the popular party in Rome. He was the greatest general of the time and had many enemies. Antony, who was Cæsar's friend, and a relative through his mother, works on the feelings of the people.

2. Listen to me. 3. Evil deeds, more especially his "ambition." 4. Is remembered. 5. Placed in the earth ; buried. 6. Decimus Junius Brutus had served under Cæsar in Gaul (France), and in the civil wars, and Cæsar had treated him like a son. 7. Wishful to get great power, fame, or honour. (*Ambition* means *going about*, and was applied in Rome to candidates for any office in the state going about seeking for votes.) 8. If it can be proved he was ambitious. 9. Great or grave fault (*L. gravis* heavy), one to cause us and him sorrow. 10. Been punished for it. 11. The rest of the Roman senators who had conspired against Cæsar, of whom Cassius (*cash'-e-us*) and Casca (with Brutus) were the chief. 12. At. 13. It was the custom in Rome (and is so in France now) for the nearest friend of any great man to attend his funeral, and deliver a speech in praise of the deceased. We occasionally have funeral sermons.

Draw outline maps (A) British Islands ; (B) Europe ; (C) Asia.
(See Preface.)

Lesson 2.—Tuesday Morn. Geography. Write and Learn.

THE BRITISH EMPIRE.

(A).—The BRIT'-ISH EM'-PIRE consists of the **United Kingdom of Great Brit'-ain and Ire'-land**, and of a large number of *possessions* in almost all parts of the world.

[TURN OVER.]

LESSON 2—Continued.

Great Britain is the largest island in *Europe*. It is about six hundred miles long, and consists of **Scot'-land** in the *north*, **Eng'-land** in the *south*, and **Wales** in the *south-west*.

Ire'-land is an island to the *west* of England. The *Irish Sea* and *St. George's Channel* separate it from England.

These islands are all situated in the **At-lan'-tic Ocean** towards the *north-west* of Europe. The **North Sea** and the **Eng'-lish Chan'-nel** separate Great Britain from the other countries of Europe.

England is nearly as large as Scotland and Ireland together. **Lon'-don**, on the *R. Thames*, is the capital of England; **Ed'-in-burgh** (*ed'-in-brö*), near the *Firth of Forth*, is the capital of Scotland; **Dub'-lin**, on the *R. Lif'-fey*, is the capital of Ireland. They are all large and beautiful cities.

EUROPE.

(B).—There are five continents: **Eu'-rope**, **A'-si-a**, **Af'-ri-ca**, **A-mer'-i-ca**, and **Aus-tra'-li-a**.

EUROPE is the *smallest* of the great divisions of the globe, except Australia; but it is the continent most important to us, because it is the one we live in. Its length is 3,400 miles and its breadth 2,400 miles. It contains $3\frac{1}{2}$ millions of square miles.

It lies to the *north-west* of the OLD WORLD, and has the **Arc'-tic Ocean** on the *north*, the **At-lan'-tic Ocean** on the *west*, the **Me-di-ter-ra'-ne-an Sea**, the **Black Sea**, and **Mount Cau'-ca-sus** on the *south*. The **U'-ral** (*oo'-räl*) **Mts.**, the **R. Ural**, and the **Cas'-pi-an Sea** separate it from ASIA on the *east*.

Europe contains a great number of *gulfs* and *inland seas*. It has the greatest length of *coast line*, according to its size, of any of the continents. This great length of coast influences the climate, and affords great facilities for commerce.

ASIA.

(C).—Asia, the largest of the continents, forms nearly *one-third* of all the land on the earth's surface. It has the **Arc'-tic Ocean** on the *north*, the **Pa-cif'-ic Ocean** on the *east*, the **In'-di-an Ocean** on the *south*, and **Europe**, the **Cas'-pi-an Sea**, the **Black Sea**, the **Me-di-ter-ra'-ne-an**, and part of **Africa** on the *west*. It is above $4\frac{1}{2}$ times as large as Europe, containing 17,300,000 square miles and more than 830 millions of people.

PARTS OF THE SEA.—(1) The **Red Sea** on the *west* between *Africa* and *Asia*.

- (2) **A-ra'-bi-an Sea**, on the *south*.
- (3) **Bay of Ben-gal'**, *east* of *India*.
- (4) **China Sea**, *south* of *China*.
- (5) **Yel'-low Sea**, *north* of *China*.
- (6) **Ja-pan' Sea**, between *Japan Islands* and the *mainland*.
- (7) **Sea of O-khotsk'**, *east* of *Si-be'-ri-a*.

[GO TO NEXT PAGE.]

LESSON 2—Continued.

CAPES.—**Ras-al-Had**, south-east of Arabia; **C. Com'o-rin**, south of Hin-dus-tan'; **East Cape**, in Beh'-ring Strait; and **North-east Cape**, in the north of Siberia.

THE OCEAN.

(D).—The **ocean** is the large mass of **salt water** which covers a little more than *three-quarters* of the surface of the globe.

The earth has a diameter of 8,000 miles, and a circumference of about 25,000 miles. The surface of this vast globe contains 200 millions of square miles. It is found that only 52 millions, or about a quarter of this immense surface, consists of land, the remainder being water.

The land consists *chiefly* of two large masses, one in the *eastern* and the other in the *western* hemisphere. These masses are broken up by the waters of the ocean, forming *gulfs, bays, inlets, and seas*. Each of the large masses of land is divided into **continents**. In the *eastern* hemisphere are the continents of **Europe Asia**, and **Africa**, forming the *Old World*, and the more recently discovered continent of **Austra'lia**.

In the *western* hemisphere are the continents of **North and South America**, forming the *New World*.

Australia was first visited by Dutch navigators at the commencement of the 17th century (1606), and within half the century its *north and west* coasts were explored. The Dutch called it New Holland.

America was discovered by Christopher Columbus towards the close of the 15th century (1492).

Lesson 3.—Wednesday Morning. Work these Sums.

AVERAGES.

- (1) What is the average of these numbers : 6, 11, 14, 5, 13, and 17 ?
- (2) In seven schools there are 329, 476, 924, 395, 104, 84, and 110 scholars respectively. What is the average per school ?
- (3) If you earn 6s. on Monday, 8s. on Tuesday, and 10s. on Wednesday, what is your average daily wage for those three days ?
- (4) If I owe $\frac{2}{3} - \frac{1}{6}$ of £5·1, what is the amount of my debt ?
- (5) I received £175, which was the amount of a certain sum of money lent for $3\frac{1}{2}$ years at 5 per cent. What was the amount lent ?

English Prefixes.—Learn and Write.

1. **a=on** : as *abed, aboard, ashore*.
2. **a=against, close to** : as *along, abreast*.
3. **a=of, from** : as *adown, anew, akin, athirst*.
4. **an(=and)=against** : as *answer, to swear against*.
5. **be=by, beside, to make** : as *bedim, to make dim ; becalm*.
6. **en (em or im, before b and p)=in** : as *enshrine, embark, implant*.

Lesson 4.—Thursday Morn. Grammar. Write and Learn.

Ex. 1. *Analyse and Parse the words in italics.*

The birds *sing* in the forest glade ;
 And *still* within *each* leafy nook,
 Where happy childhood *careless* played,
 The wild flowers blossom ; and the brook
Its pebbled bed *still* murmurs o'er,
Just as it did in days of yore.—(Geo. Donald.)

Ex. 2. *Correct these sentences, and show why they are wrong :* This is the *easiest* book of the two. I can never think so very *mean* of him. The council *have* decided against it. The herd of swine *were* in the wood.

Latin Roots.—Learn and Write.

æquus or **ëquus** = equal, just, even.

equal, evenly balanced

equator, a circle dividing the earth into two equal parts

equity, justice

equiangular, having equal angles

estimo = I value, **estimatus** = valued ; or **estimo**, **estimatus**.

estimate, to calculate ; to prize

equinox, the time of the year when the night (*nox*) and day are of an equal length, about March 21st and Sept. 21st.

equilateral, having equal sides.

esteem, to value highly ; to respect

Lesson 5.—Friday Morning. Work these Sums.

(1) Find the average of 1600, 276, 974, 0, 236, 845, 1239.

(2) A gentleman's income for 1879 was £300 ; for 1880, £560 ; for 1881, £480 10s. ; and for 1882, £390 16s. 8d. What must his income be in 1883, so as to equal the average yearly income of the four previous years ?

(3) What is the average weight of six men, whose individual weights are 11st. 7lb., 9st. 11lb., 13st. 4lb., 12st. 12lb., 10st. 9½lb., and 10st. 6½lb. ?

(4) Express in positive terms $\frac{5 \times \frac{2}{3} \times \frac{4}{7} \times 6 \times 4 \cdot 16}{2 \cdot 380952}$

(5) If .375 of a yard of cloth costs .4 of £1, what will be the cost of .3125 of a yard ?

COMPOSITION.—Write a **letter** to a young friend describing *A voyage from London to Constantinople*. Mention the seas, &c., sailed through, the countries passed, and anything of interest you might be expected to see, or write on *any subject* you like.

SECOND WEEK.

Lesson 6.—Monday Morning. Learn.

PSALM CXIX., Verses 9—16; OR ELSE LEARN—

MARK ANTONY'S ORATION—(Continued).

He was my friend; ¹⁴ faithful and just to me:

But Brutus says he was ambitious;

- (15) And Brutus is an honourable man.

He hath brought many *captives*¹⁵ home to Rome,Whose *ransoms*¹⁶ did the *general coffers fill*.¹⁷

Did this in Cæsar seem ambitious?

When that the poor have *cried*, Cæsar hath *wept*.¹⁸

- (20) Ambition should be made of sterner stuff.
- ¹⁹

Yet Brutus says he was ambitious;

And Brutus is an honourable man.²⁰

14. Antony was one of Cæsar's principal friends. He was with him in the war in Gaul, and also led part of the army at the battle of Pharsalia, between Pompey and Cæsar, B.C. 48, which made the latter master of the Roman world. 15. A prisoner taken in war. 16. Money paid to buy back, or free, a prisoner or slave. 17. Coffer, a chest to hold money. Cæsar, instead of keeping the money paid for ransom, as he might have done, paid it over to the state funds. 18. Cæsar had a kind feeling heart, and felt sorry for the poor who cried to him, or asked him for help. 19. An ambitious man should have no gentle feelings, if he hopes to succeed in his desires for power and fame. 20. When Antony calls Brutus "an honourable man" he means quite the contrary; he is speaking *sarcastically* and *ironically*. Some of the people thought Brutus a hero for killing Cæsar; Antony wants to persuade them he is really a bad man, but does not wish to say so.

Draw outline maps (A) British Islands; (B) Europe, with seas; (C) Asia, with mountains.

Lesson 7.—Tuesday Morn. Geography. Write and Learn.

FOREIGN POSSESSIONS.

(A).—The **British Empire** is the largest empire in the world. The *Empire of Russia* is nearly as large, and the *Empire of China* comes next. The Chinese Empire has the greatest number of people.

Those countries in *Asia*, *Africa*, and *America*, which belong to Great Britain, are called **Colonies**, or **Foreign Possessions**.

In *Asia* our largest possession is *In'-dia*, properly called *Hin'-du-s-tan*'. Capital—*Cal'-cut'-ta*.

In *Africa* the chief country belonging to Great Britain is *Cape Col'-o-ny*. Capital—*Cape Town*.

In *America* the *Do-min'-i-on of Can'-a-da*, nearly as large as all Europe, is the chief possession. Capital—*Ot'-ta-wa*.

The countries belonging to Great Britain in the *South of Asia* are the large continent of *Aus-tra'-li-a*, capital *Mel'-bourne*; and the Islands of *New Zealand*, capital *Wel'-ling-ton*.

The number of people ruled over by our Queen is about 305½ millions.

LESSON 7—Continued.

EUROPE—SEAS.

(B).—(1) The **White Sea**, in the *North of Rus'-si-a*, connected with the **ARCTIC OCEAN**.

(2) The **Bal'-tic Sea**, between *Russia* and *Swe'-den*, opening into the **NORTH SEA**.

(3) The **North Sea**, between *Great Britain* and the **Continent**.

(4) The **Irish Sea**, between *England* and *Ireland*.

(5) The **English Channel**, between *England* and *France*, joining the **Atlantic Ocean** and the **North Sea**.

(6) The **Me-di-ter-ra'-ne-an**, between *Europe* and *Africa*.

(7) The **A-dri-at'-ic Sea**, or **Gulf of Ven'-ice**, between *It'-a-ly* and *Aus'-tri-a*.

(8) The **Sea of Mar'-mo-ra**, between *Tur'-key* and *Asia*.

(9) The **Black Sea**, between *Turkey*, *Russia*, and *Asia Mi'-nor*,

(10) The **Sea of A'-zof**, to the *South of Russia*.

ASIA—SURFACE.

(C).—**MOUNTAINS AND PLAINS**.—Asia is a continent of *great tablelands and high mountains*. The *centre* consists of a high tableland called the **Plateau of Ti-bet'**, and to the *east* of this is a great desert called the **Desert of Go'-bi** (*gō'-bē*). The **Thi-an-Shan' Mts.** go across this tableland, and the **Him-a-la'-yas** separate it from **INDIA**.

Mount Ev'-er-est, in the **Himalayas**, the highest mountain in the world, is 29,000 feet, or $5\frac{1}{2}$ miles high.

The **Al-tai'** (*äl-ti'*) mountains separate the tableland from the **Plain of Si-be'-ri-a**, and the **Kuen-Lun' Mts.** (*kwēn-loon'*) run across the plateau, parallel with the **Himalayas**.

To the *west* of the **Himalayas** are the **Hin'-du Kush Mts.** (*u=oo*), and still further *west* are the **deserts of Persia and Arabia**.

Between **EUROPE** and **ASIA** are the **U'-ral** (*oo'-rāl*) **Mts.** They are not very high.

THE OCEAN.

(D).—In addition to the large masses called continents there are a great many smaller pieces of land called **islands**. Those islands which are close to the continents, and are therefore considered as belonging to them, are called **continen'tal islands**. Those islands which are scattered in various parts of the ocean, away from the larger masses of land, are called **ocean'ic islands**.

Great Britain, **Ireland**, and all the **islands of Europe** are *continental* islands. **St. Hele'na**, **Ascen'sion**, and all the **islands of the mid-Pacific** are *oceanic*.

The water of the ocean is not *equally distributed*. There is **three times** more water *south* of the equator than *north* of it. In the eastern hemisphere there is nearly **twice** as much water as land,

[GO TO NEXT PAGE.]

LESSON 7—Continued.

and in the western hemisphere **four** times as much. If **London** be made the centre of a hemisphere, nearly all the land of the globe will be included in it. Only *one-seventeenth* part of all the land will be found in the remaining hemisphere, which may therefore be called the water hemisphere. **New Zealand** will be about the centre of this hemisphere.

In the land hemisphere the land and water surfaces are *nearly equal*, but in the water hemisphere the land only forms *one-eleventh* part of the surface.

The water of the globe is not divided into large masses with marked divisions and separations between them. There is really but *one* ocean, which is roughly broken up into at least **five** great parts by the continents; these are—

- (1) **The Atlan'tic Ocean.**
- (2) **The Pacific Ocean.**
- (3) **The In'dian Ocean.**
- (4) **The Arc'tic Ocean.**
- (5) **The Antarc'tic Ocean.**

A *sixth* ocean is sometimes spoken of by geographers. Between the Antarctic region and a line joining **Cape Horn**, **C. Agul'has** (in Cape Colony), **C. Leeu'win**, and **Port Philip** in Australia, and then to **C. Horn** again is a large region of water which goes entirely round the earth without any break. This is often called the **Southern Ocean**.

Lesson 8.—Wednesday Morning. Work these Sums.

(1) Find the average of the following numbers: $9\frac{3}{4}$, $12\frac{1}{2}$, 14, 0, $28\frac{1}{2}$, 19.

(2) The weights of five bales of goods are 1cwt. 3qr.; 2cwt.; 3cwt. 1qr. 14lb.; 1cwt. 2qr.; 1cwt. 1qr. 14lb. How much do the bales weigh on an average?

(3) A tramcar performs ten journeys in a day. During this time it carries 25, 17, 12, 33, 17, 20, 19, 15, 26, and 34 passengers respectively. What is the average number of passengers per journey?

(4) A merchant insures his life for £7,500 at £2 17s. 6d. per cent. What annual premium will he have to pay?

(5) Find the sum of $\frac{5}{8}$ of 6s. 8d. and $1\frac{2}{7}$ guinea.

English Prefixes.—Learn and Write.

7. **for** = *through, thoroughly* : as *forgive, forbid*.
8. **fore** = *before* : as *foretell, forecast, forenoon*.
9. **gain** = *against* : as *gainsay, to speak against*.
10. **mis** = *wrong, ill, not* : as *mistake, misdeed, mistrust*.
11. **off** = *from* : as *offshoot, offspring*.
12. **out** = *beyond* : as *outbid, outburst*.

Lesson 9.—Thursday Morn. Grammar. Write and Learn.

Ex. 1. *Analyse and Parse the words in italics.*

He stumbled *twice*—the foam splashed *high*,
 With *hoarser* swell the stream raced by ;
But still, as if in parting life,
Firmer he grasped the cross of strife ;
Until the opposing bank he gained,
 And up the *chapel-pathway* strained.—(*Lady of the Lake.*)

Ex. 2. *Correct these sentences, and show why they are wrong :* The usual number in the class *were* from twelve to seventeen. The company was a large one, and when it broke up several of *them* lingered behind. The Russian advanced corps was attacked, and *they* were driven back in great confusion.

Ex. 3. *Give the meaning of these words, showing the force of the prefix :* Asleep, enrich, engrave, bedeck, besiege, enchain, encamp.

Latin Roots.—Learn and Write.

	altus = high.	
<i>altitude</i> , height		<i>altar</i> , a raised place for sacrifices
<i>exalt</i> , to make high		<i>haughty</i> (Fr.), proud
	angulus = a corner.	
<i>angle</i> , a corner		<i>quadrangle</i> , having four angles
<i>triangle</i> , having three angles		<i>rectangle</i> , having right angles

Lesson 10.—Friday Morning. Work these Sums.

(1) What is the average of the following numbers : $50\frac{3}{8}$, $46\frac{7}{8}$, $23\frac{1}{8}$, $67\frac{1}{2}$, $94\frac{9}{8}$, and $85\frac{3}{8}$?

(2) Find the average price of six oxen, which were bought at £25 10s., £19 12s. 6d., £20 10s., £19 5s., £21 15s., and £23 12s. 6d. respectively.

(3) In three towns there are 34729, 46238, and 87296 inhabitants respectively. What is the average per town ?

(4) On the 14th of April I lend £670 at 4 per cent. The money is repaid on the last day of December the same year. How much interest is due ?

(5) Find the difference between $\cdot 03\bar{7}$ of 27s. and $\cdot 02$ of £2.

COMPOSITION.—Write a short **essay**, and *compare the dog and the horse* under the two aspects of—

(1) As the friends of man.

(2) As sagacious animals, using any short illustrative anecdotes that are suitable.

THIRD WEEK.

Lesson 11.—Monday Morning. Learn.

PSALM CXIX., Verses 17—24 ; OR ELSE LEARN—

MARK ANTONY'S ORATION—(Continued).

- You all did see that on the *Lu'-per-cal*²¹
 I thrice²² presented him a *kingly crown*,²³
 (25) Which he did thrice refuse : was this ambition ?
 Yet Brutus says he was ambitious ;
 And, *sure*,²⁴ he is an honourable man.
 I speak not to *disprove*²⁵ what Brutus spoke,
 But here I am to speak what I do know.
 (30) You all did love him *once*,²⁶—not without cause :—
 What cause *withholds*²⁷ you then, to *mourn*²⁸ for him ?
 O *judgment* ! thou art fled to *brutish beasts*,²⁹
 And men have lost their reason ! *Bear with me* ;³⁰
 My heart is in the coffin there with Cæsar,
 (35) And I must *pause*³¹ till it come back to me.

21. A feast held in a place called the *Lu'-pér-cál*, at the foot of Mount *Av-en-tí'-nus*, in Rome. The games, called the *Lu-per-ca'-lia*, took place on the 15th February, in honour of *Lu'-pér-cús*, the god of fertility, whom the shepherds supposed protected their flocks against wolves. 22. Three times. 23. Antony was *consul* along with Cæsar. As Cæsar wished to be emperor (king) in name as well as in power, Antony offered him the crown in public, but seeing it did not please the people he refused it. The Romans had a great dislike for kings, and for centuries the emperors did not wear crowns. 24. Surely ; certainly ; without doubt. 25. Contradict. 26. That is, when he was alive. 27. Forbids. 28. As they loved him when alive, so now they ought to be sorry for his death, and not think, with Brutus and the rest, that a brave deed had been done in killing him. 29. If you cannot judge yourselves whether Cæsar was worthy of being loved and mourned for you are no better than beasts that have no reason. 30. Antony's feeling so overcame him that he was not able to speak. His heart was too full of grief. 31. Rest awhile ; stop for a time.

Draw outline maps (A) *Scotland* ; (B) *Europe, with seas, &c.* ; (C) *Asia, with seas, rivers, &c.*

Lesson 12.—Tuesday Morn. Geography. Write and Learn.

SCOTLAND.

(A).—BOUNDARIES AND EXTENT.—Scotland forms the *northern* part of the Island of **Great Britain**. It is bounded on the *north* and *west* by the **Atlantic Ocean**, and on the *east* by the **North Sea**. On the *south* it is separated from **England** by the **Solway Firth**, the **Cheviot Hills**, and the **R. Tweed**.

Its greatest **LENGTH**, from **Dunnet Head**, in *Caith'-ness*, to the **Mull of Galloway**, in *Wig'-ton*, is about 280 miles, and its **BREADTH** varies from 35 miles to about 150 miles. Its **AREA**, including the islands, is 30,000 square miles, or rather more than half the size of **England** and **Wales**. The **POPULATION** is 3,735,000, or a little less than that of **London**. The city of **Ed'-in-burgh** (*ěd'-in-brŭ*) is the capital.

LESSON 12—Continued.

EUROPE—SEAS—(Continued).

(B).—The **White Sea** is frozen over during three or four months of the year, hence its name.

The **Baltic Sea** is generally shallow, and subject to storms. It has no tides, and is frozen over during part of the winter. Its waters are not so salt as those of the ocean, owing to the many rivers which run into it. It opens into the *North Sea*, through the **Sound**, the **Great Belt**, and the **Little Belt**, the **Cat'-te-gat**, and the **Skag'-er Rack**. It has two large gulfs, the **Gulf of Both'-ni-a** in the *north*, and the **Gulf of Fin'-land** in the *east*.

The **Mediterranean** is the largest inland sea in the world. It opens into the **Atlantic** by the **Straits of Gib'-ral'-tar** (17 miles across). A strong *upper* current flows into it from the Atlantic, and an *under* one flows out of it. Its waters are very salt owing to evaporation. The name means "*The sea in the middle of the land*," or "*The Midland Sea*."

The **Black Sea** is of an oval shape, and is very deep. It is subject to storms, and abounds in fish. It gets its name from its black rocky shores covered with thick *dark* woods, and from the storms and fogs to which it is subject in winter.

THE SEAS, &c., OF ASIA.

(C).—(1) The **Arctic Ocean**. It is frozen over for a great part of the year. Three large rivers flow into it through **SI-BE'-RI-A**, the **Le'-na**, the **Yen-i-se'-i** (*yên-ê-sâ'-ê* or *yên-ê'-sâ*), and the **O'-bi**. The river Yenisei drains **Lake Bai'-kal** (*bî'-kâl*), the largest fresh-water lake in **Asia**. All these rivers are navigable.

(2) The **Cas'-pian Sea**, a very large salt water lake, forms part of the boundary between **ASIA** and **EUROPE**. No large rivers flow into it from Asia, but it receives the *Volga* from Europe. The **Sea of Ar'-al**, also a salt water lake, 300 miles *east* of the Caspian, receives the river **A'-mu Da'-ri'-a** (*â'-mû dâ-rê'-â*), or **Ox'-us**.

(3) The **Red Sea** is bounded by **A-RA'-BI-A** on the *east* and **Africa** on the *west*. It is joined to the *Mediterranean* by the **Suez Canal** (about 90 miles long), and to the *Arabian Sea* by the **Strait of Babel-Man'-deb**. It receives no important river.

(4) The **Per'-si-an Gulf** partly separates **PER'-SI-A** from **ARABIA**. It receives the two large rivers, the **Ti'-gris** and the **Eu-phra'-tes** (*û-frâ'-tês*). There are valuable **pearl** fisheries in it.

(5) The **A-ra'-bi-an Sea** is bounded by **ARABIA**, **BAL-U-CHIS-TAN'**, and **HIN'-DUS-TAN'**. The river **In'-dus**, which rises in the *Himalayas*, flows into it.

THE FIVE GREAT OCEANS.

(D).—1. The **Atlantic Ocean** lies between the *Old* and the *New World*.

It is bounded by **Europe** and **Africa** on the *east*, and by **North**

[GO TO NEXT PAGE.]

LESSON 12—Continued.

and **South America** on the *west*. It is about 9,000 miles long, and contains 26 million square miles, or about one-eighth of the surface of the earth.

The Atlantic has many large openings into the land. The principal ones that are connected with it in the *Old World* are the **Baltic Sea**, the **North Sea**, the **Bay of Bis'cay**, the **Mediterra'nean Sea**, and the **Gulf of Guin'ea**.

In the *New World* the principal openings are **Baffin Bay**, **Da'vis Strait**, **Hud'son Bay**, **Gulf of St. Lawrence**, **Gulf of Mexico**, and the **Caribbe'an Sea**.

The Atlantic is remarkable for a current called the **Gulf Stream**, which flows out of the *Gulf of Mexico* and across to the shores of Europe. (See Lessons 117, 122, 127.)

Many of the great rivers of the world flow into the Atlantic. Some parts of it are very deep.

The principal islands are the **British Isles**, **Ice'land**, **New-foundland**", and the **West Indies**, all of which are continental islands.

Lesson 13.—Wednesday Morning. Work these Sums.

(1) What is the average in the following quantities: 3'62, '89, 5, 8'016, '75, and 13'902?

(2) A farm of 180 acres was held under three different rentals, as follows: 80 acres at £1 12s. per acre; 60 acres at 30s. per acre; and the remainder at 25s. per acre. What was the average rent per acre?

(3) A grocer sold 3cwt. of sugar at 3d. per lb., and $2\frac{1}{2}$ cwt. at 4d. per lb. What was the average price per lb.?

(4) Find the difference between 3'45 guineas, and $\frac{3}{11}$ of £5.

(5) Supposing a boy's labour to be equal to $\frac{2}{3}$ of a man's; in what time will 8 men and 7 boys do a piece of work which can be done by 7 men in $11\frac{1}{2}$ days?

English Prefixes.—Learn and Write.

13. **over**=*over, above*: as *overseer*, one who looks after another whilst at work; *overcast*, *overdo*, *overcharge*.

14. **to**=*to, on this*: as *together*, gathered to; *to-day*, this day.

15. **un**=*not*: as *unable*, *unbind*.

16. **under**=*under, below*: as *understand*, *undergo*, *undersell*.

17. **with**=*from, against*: as *withdraw*, *withhold*.

Lesson 14.—Thursday Morn. Grammar. Write and Learn.

Ex. 1. *Analyse and Parse the words in italics.*

Oft did the harvest to their sickle *yield*,

Their furrow oft the stubborn glebe *has broke*,

How jocund did they drive their team *afield*!

How bowed the woods beneath their sturdy stroke!—(Gray.)

[TURN OVER.]

LESSON 14—Continued.

Ex. 2. Turn the above into prose, correcting any grammatical errors.

Ex. 3. Give the meaning of these words, showing the force of the prefix: Embolden, entomb, empower, mistake, misplace, forearm, forgive, gainsay.

Latin Roots.—Learn and Write.

	annus = a year.	
<i>annual</i> , yearly		<i>annuity</i> , a yearly allowance
<i>anniversary</i> , a day returning every year		<i>anno domini</i> (A.D.), in the year of our Lord
	aqua = water.	
<i>aqueduct</i> , a channel for conveying water		<i>aqueous</i> , watery
<i>aquatic</i> , relating to the water		<i>terraqueous</i> , composed of land and water

Lesson 15.—Friday Morning. Work these Sums.

(1) Find the average of the following numbers: 5·063, 7·00285, 12, 8·7396, 5·69352.

(2) Harry saved 90 pennies, Thomas 47 threepenny pieces and 7 sixpences, Charles 7 half-crowns, and Joseph half-a-guinea and a florin. What do their savings average?

(3) Five parcels weighed respectively 8lb. 10oz.; 14lb. 8oz.; 1qr. 10lb.; 3½lb.; and 7lb. 12oz. What is the average weight per parcel?

(4) I sell goods worth £658 in 8 weeks, and gain £60 by the sale. What value of goods must I sell in 42 weeks, so as to gain £45?

(5) Find by practice the value of 3 miles 3fur. 20yds. at £92 15s. 4d. per mile.

COMPOSITION.—Write a **letter** to your cousin describing what are the *healthiest games* for boys or girls. Say in what their value consists, and why certain games are played in certain parts of the year.

FOURTH WEEK.

Lesson 16.—Monday Morning. Learn.

PSALM CXIX., Verses 25—32; OR ELSE LEARN—

MARK ANTONY'S ORATION—(Continued).

But *yesterday*,³² the word of Cæsar might
Have stood against the world:³³ now lies he there;
And none so poor³⁴ to do him reverence.³⁵
O masters!³⁶ if I were disposed³⁷ to stir

(40) Your hearts and minds to mutiny³⁸ and rage,

[GO TO NEXT PAGE.]

LESSON 16—Continued.

I should do Brutus wrong, and Cassius³⁹ wrong,
Who, you all know, are honourable men.

I will not do *them*⁴⁰ wrong: I rather choose

To wrong the *dead*,⁴¹ to wrong myself, and you,

(45) Than I will wrong such honourable men.

32. When he was alive. 33. Cæsar had been elected Emperor for life, and ruled over the Roman Empire, which included nearly the whole of the then known world. 34. Cæsar being dead there was no one poorer than he now was, for, having lost his life, he had lost all. 35. To honour, to bow before him, as almost all the world had done when he was alive. 36. Antony calls them "masters," for most of the great officers of state were elected by the people, whose servants these officers were. 37. Inclined; wished. 38. To rise against those in authority. 39. Cassius was a Roman nobleman, upon whom Cæsar had bestowed many honours. He was the leader of the conspiracy, and the author of it. 40. Brutus and Cassius, and the rest. 41. That is, Cæsar.

Draw outline maps (A) Scotland, capes, &c.; (B) Europe, seas, &c.; (C) Asia, seas, rivers, &c.

Lesson 17.—Tuesday Morn. Geography. Write and Learn.

SCOTLAND.

(A).—CAPES.—ON THE EAST COAST.—Dun'-cans-by Head, in *Caith'-ness*; Tar'-bet Ness, in *Ross*; Buch'-an Ness, in *Aberdeen'*; Fife Ness, in *Fife*; St. Abb's Head, in *Ber'-wick* (*bēr'-rik*).

On the NORTH COAST.—Dun'-net Head, in *Caithness*; and Cape Wrath (*rāth*), in *Sutherland*.

On the WEST COAST.—Ard-na-mur'-chan Point and Mull of Can'-tire, in *Argyle'*.

On the SOUTH COAST.—Mull of Gal'-lo-way, in *Wig'-ton*.

In the HEB'-RI-DES (*hēb'-rē-dēz*).—Butt of Lew'-is (*loo'-is*), in the north of the Island of *Lewis*.

EUROPE—OTHER PARTS OF THE SEA.

(B).—The Bay of Bis'-cay, opening into the *Atlantic*. Very stormy.

The Strait of Gib'-ral'-tar, leading from the *Atlantic* into the *Mediterranean*. The Gulf of Ly'-ons and the Gulf of Gen'-oa are parts of the *Mediterranean*.

The Strait of Bon-i-fa'-cio (*bō-nē-fā'-tcho*), between *Cor'-si-ca* and *Sar'-din'-ia*.

The Strait of Mes-si'-na (*mēs-sē'-nā*), between *Sicily* and *Italy*.

The Strait of O-tran'-to, leading from the *I-o'-ni-an Sea* into the *A-dri-at'-ic Sea* or *Gulf of Venice*.

The Ar-chi-pel'-a-gō (*ār-kē-pēl'-ā-gō*) or Æ-ge'-an (*ē-jē'-ān*) Sea, remarkable for the number of islands it contains.

LESSON 17—Continued.

The **Dar-da-nelles'**, the **Sea of Mar'-mo-ra**, and the **Bos'-porus*** or **Strait of Con-stanti-no'-ple**, leading into the *Black Sea*.

The **Strait of Yen-i-ka'-le** (*yên-ê-ká-lă*), joining the *Black Sea* and the *Sea of A'-zof*.

The **Cas'-pi-an Sea**, forming part of the boundary between *Europe* and *Asia*.

THE SEAS, &c., OF ASIA—(Continued).

(C).—(6) The **Bay of Ben-gal'** has **HIN'-DUS-TAN''** on the *west*, and **FURTHER INDIA** (or **BRITISH BUR'-MA**) on the *east*. It contains the island of **Cey-lon'**, south of **HIN'-DUS-TAN''**. The rivers **Gan'-ges** and **Brah-ma-pu'-tra**, the first rising on the *south*, and the latter on the *north* of the *Himalayas*, flow into it.

(7) The **China Sea** is separated from the *Indian Ocean* by **Si-am'**, the **MA-LAY' PENINSULA**, the islands of **SU-MA'-TRA** ($a = d$), and **JA'-VA** ($a = d$), and from the *Pacific* by **BOR'-NE-O** and the **PHIL'-IP-PINE IS.** It receives the **R. Me-Khong'** (*mă-kōng'*).

(8) The **Yellow Sea** receives the river **A-moor'**, which rises *south* of the *Altai' Mts.*

CLIMATE, SOIL, PRODUCTIONS.—The *north* is very cold, the *central parts* are generally cold and dry, and the *south* hot. In the *centre* and *west* are large deserts, and in *Si-be'-ri-a* is much barren land, but the *south* is fertile. **Gold, silver, lead, and copper** are got from the *Altai Mts.*, and **diamonds** are found in *India*. **Coal** is found in *India, China, and Siberia*.

Tea is got from *China and India*, and **coffee** from *Arabia*. The **elephant, the lion, and tiger** are found in the *south*.

There are more than 830 millions of people in *Asia*, or about half the people in the world, *China* having the greatest number.

THE FIVE GREAT OCEANS—(Continued).

(D)—2. The **Pacific Ocean** is the largest of all the oceans, occupying *one-fourth* of the entire surface of the earth. It therefore covers a greater area than all the land put together.

It is bounded by **North and South America** on the *east*, and by **Asia and Australia** on the *west*.

This ocean contains about one-half of all the water on the surface of the earth. It is narrow in the *north*, but very wide in the *middle and south*, being more than 12,000 miles across. It contains 90 millions of square miles.

Unlike the *Atlantic Ocean* there are few great seas connected with

[GO TO NEXT PAGE.]

*The spelling *Bosphorus* is incorrect, and arose, in the first instance, through a mistake, which has been perpetuated by geographers and map makers copying from one another.

LESSON 17—Continued.

it. The principal ones are **Beh'ring Sea** (*bě'-rīng*), **Japan' Sea**, **Yellow Sea**, and **Chi'na Sea**, all on the east of *Asia*.

The largest rivers flowing into it are the **Hoang-ho'** (*wǎng-hō'*), and the **Yang'tse-kiang'** (*yǎng'-tsē-kē-āng'*), in *China*.

New Zea'land and **Japan'** are the principal islands, but a distinguishing feature of this ocean is the large number of islands it contains. Some of the smaller ones have been formed by the *coral insect*, and many others are of *volcanic* origin.

Lesson 18.—Wednesday Morning. Work these Sums.

(1) Find the average of the following numbers : 29·72, 86·263, 7·1, 0, 108·035, 11·87, and 52·951.

(2) A farmer threshed the following quantities of corn from four fields : From 4 acres 1 rood he obtained 17qr. 5bus. ; from 11 acres 3 roods the yield was 44qr ; from 12 acres 2 roods he got 60qr. ; and from $9\frac{1}{2}$ acres the produce was $4\frac{1}{2}$ qr. per acre ; what was the average yield per acre ?

(3) What is the average age of 10 boys, whose respective ages are 10yrs. 6mos., 11yrs. 10mos., 11yrs. 4mos., 11yrs. 3mos., 10yrs., 9yrs. 9mos., 12yrs. 1mo., 10yrs. 2mos., 9yrs. 7mos., and 11yrs. ?

(4) The product of two factors is $1\frac{1}{2}$, and one factor is $3\cdot42857\bar{1}$. What is the other factor ?

(5) Multiply £176 19s. 6·004d. by ·0045.

Latin Prefixes.—Learn and Write.

Most of these prefixes are Latin prepositions, but in many words (which have come to us through the French) they have undergone very considerable modification. All French forms are included in brackets.

1. **a, ab, or abs**=*from* or *away* : as *avert*, to turn from ; *abrupt*, broken from ; *abstract*, to draw from.
2. **ad**=*to*, and has the various forms of (**a**), **ac**, **af**, **ag**, **al**, **an**, **ap**, **ar**, **as**, **at**, so as to join easily in sound with the first consonant of the root : as *advert*, to turn to ; *ascend*, *abate*, *accept*, *affable*, *aggregate*, *allot*, *annex*, *approach*, *arrive*, *assist*, *attend*.
3. **ante** or **an**=*before* : as *antedate*, to date before ; *antechamber*, *antecedent*, *ancestor*, one who has gone before.
4. **bi** or **bis**=*twice* : as *bisect*, to cut in two ; *biscuit*, twice baked.
5. **circum** or **circu**=*round* or *about* : as *circumvent*, to come round, to cheat ; *circuitous*, *circumscribe*.

Lesson 19.—Thursday Morn. Grammar. Write and Learn.

Ex. 1. *Analyse and Parse the words in italics.*

Down with the hatches on those who sleep !

The wild and whistling deck have we ;

Good watch, my brothers, to-night we'll keep,

While the tempest is on the sea !—(Bayard Taylor.)

Ex. 2. *Correct these sentences, and show why they are wrong :*
Twenty-five to thirty shillings *were* the usual wages of a man. John was three years older than *her*. *Whom* do men say that I am ?

Ex. 3. *Turn these words into verbs :* Slave, thick, just, long ; *and then make the verbs into sentences, showing their meaning.*

Latin Roots.—Learn and Write.

	arma = arma.	
armour, arms to defend with		alarm, to call to arms ; a disturbance.
armada, a fleet of armed ships		armistice, a short stoppage of fighting
army, a body of armed soldiers		
armament, a naval force	bellum = war.	
		rebellion, an insurrection [like
rebel, one who wars against law-ful authority		belligerent, carrying on war ; war-

Lesson 20.—Friday Morning. Work these Sums.

(1) Find the average of the following numbers : 15'005, 0, 17½, 14'70583, 0, 0, and 27.

(2) For six consecutive weeks the price of beef varied as follows : 1st week 10½d. per lb. ; 2nd, a fall of ½d. per lb. ; 3rd, a further fall of ½d. ; 4th, a rise of 1d. ; 5th, a further rise of ¾d. ; 6th, no change ; what was the average price ?

(3) What is the average of the following quantities : 63gals. 3qts. 1pt., 50gals. 2qts., 85gals. 1pt., 77gals. 3qts. 1pt., and 19gals. 1qt. ?

(4) A train starts from Leeds to Doncaster, a distance of 31½ miles, at the rate of 24 miles an hour. Another train starts at the same time from Doncaster to Leeds at 18 miles an hour. At what distance from Leeds will the two trains meet, and how long will they be before they meet ?

(5) If ½d. be the interest on 1s. for a calendar month, what is the rate per cent per annum ?

COMPOSITION.—Write a short essay on this passage from Shakespeare—

“How oft the sight of means to do ill deeds
Makes ill deeds done !”—*King John. IV. 2.*

Explain the passage, and illustrate by suitable anecdotes.

FIFTH WEEK.

Lesson 21.—Monday Morning. Learn.

PSALM CXIX., *Verses 33—40* ; OR ELSE LEARN—

MARK ANTONY'S ORATION—(Continued).

But here's a *parchment*⁴² with the seal of Cæsar ;I found it in his *closet*⁴³—'tis his *will* ;⁴⁴Let but the *commons*⁴⁵ hear this *testament*,⁴⁶

(Which, pardon me, I do not mean to read)

(50) And they would go and kiss dead Cæsar's *wounds*,⁴⁷And dip their *napkins*⁴⁸ in his *sacred*⁴⁹ blood ;Yes, beg a hair of him for *memory*,⁵⁰

And, dying, mention it within their wills,

*Bequeathing*⁵¹ it, as a rich *legacy*,⁵²(55) Unto their *issue*.⁵³

42. A piece of the skin of a sheep or goat prepared for writing on. It is not easily destroyed. 43. His private room. 44. The writing which a person makes before his death stating what is to be done with his property. It requires to be signed and sealed. 45. The common people. 46. A name for a will. 47. The wounds made by the daggers of the assassins. 48. Handkerchiefs. 49. When Cæsar was made Emperor his body was declared to be sacred, and worthy of honour and reverence. 50. A trifling thing to keep in remembrance of him. 51. Anything given by a will is said to be bequeathed. 52. Anything left by will. 53. Children ; descendants.

Draw outline maps (A) Scotland, parts of sea ; (B) Europe, capes, islands ; (C) Asia, countries.

Lesson 22.—Tuesday Morn. Geography. Write and Learn.

SCOTLAND.

(A).—PARTS OF THE SEA.—On the EAST COAST.—Dor'-noch Firth, Mor'-ay (*mūr'-rē*) Firth, Firth of Tay, Firth of Forth.

On the NORTH COAST.—Pent'-land Firth, between *Caithness* and the Orkney Islands.

On the WEST COAST.—The Minch, between the Heb'-ri-des and the mainland ; the Firth of Lorne, Loch Lin'-nhe (*līn'-nē*), and Loch Fyne (*fīn*), in *Argyle* ; and the Firth of Clyde.

On the SOUTH COAST.—Luce Bay, in *Wigton* ; and Sol'-way Firth.

The North Channel separates Scotland and Ireland. It is 14 miles across.

The west coast of Scotland is high and rocky, and very much indented. It contains some hundreds of arms of the sea, generally called *Lochs* (*locks*). This name is also applied to lakes.

LESSON 22—Continued.

EUROPE.

(B).—CAPES.—North Cape, on the Island of **Mag'er-øe** (*mäg'-ër-ø*), and **Nord'-Kyn**, in the north of *Norway*. **Naze**, south of *Nor'-way*. The **Skaw** (*skō*), north of *Den'-mark*. **Cape Wrath** (*râth*), north of *Scotland*. **Cape Clear**, south of *Ireland*. **Land's End**, west of *England*. **Fin-is-terre'** (*fin-îs-târ'*), north-west of *Spain*. **Cape Ro'-ca**, the most westerly point, in *Por'-tu-gal*. **Cape Ta-ri-fa** (*tâ-rê-fâ*), in *Spain*, the most southerly point. **Cape Mat-a-pan'**, south of *Greece*.

ISLANDS.—In the *Atlantic*.—Great Britain and Ireland, to the west of the Continent. **Ice'-land**, in the north-west, and the **Far'-øe** (*fâ-rō* or *fâ-ru*) Isles, north of *Scotland*, belonging to *Denmark*.

In the *Baltic Sea*.—**Zea'-land** and **Fü'-nen**, belonging to *Denmark*. **Gott'-land**, belonging to *Sweden*. **Da'-go**, **Oe'-sel** (*ø'-zël*), and the **A'-land Isles**, belonging to *Russia*.

In the *Mediterranean*.—The **Bal-e-ar'-ic Isles**, belonging to *Spain*. **Cor'-si-ca**, belonging to *France*. **Sar-din'-i-a** and **Si'-ci-ly**, belonging to *Italy*. **Mal'-ta**, belonging to *England*. **I-o'-ni-an** (*ê-ô'-nê-ân*) Isles, belonging to *Greece*, and **Can'-di-a**, belonging to *Turkey*.

(C).—ASIA—COUNTRIES AND CAPITALS.

Countries of Asia.	Capital and Chief Towns.	Rivers, &c., they stand on.
1. A-si-at-ic Tur'-key.	SMYR'-NA	<i>Æ-gê-an Sea.</i>
2. A-ra'-bia	MEC'-CA	<i>Red Sea.</i>
3. Per'-si-a (<i>pêr'-shê-â</i>) ..	TE-HE-RAN' (<i>tâ-hêr-ân'</i>) ..	<i>In the Interior.</i>
4. Af-ghan-is-tan'	KA-BUL' (<i>ka-bool'</i>)	<i>R. Ka-bul'.</i>
5. Bal-u-chi-stan' (<i>châs</i> in church).	KE-LAT' (<i>kê-lât'</i>)	<i>In the Interior.</i>
6. Empire of Hin-dus-tan' ... {	CAL-CUT'-TA	<i>R. Hug'-ti</i> (<i>hoog'-tê</i>).
	MA-DRAS'	<i>B. of Ben-gal'.</i>
	BOM-BAY'	<i>A-ra'-bi-an Sea.</i>
	DEL'-HI (<i>dêl'-hê</i>)	<i>R. Jum'-na.</i>
7. Bur'-mah	MAN-DA-LAY'	<i>R. Ir-a-wa'-di.</i>
8. Si-am' (<i>sê-âm'</i>)	BANG'-KOK	<i>R. Mê-Nam</i> (<i>mâ'-nâm</i>).
9. An'-nam	HU-E' (<i>hō-ê</i> or <i>huâ</i>) ..	<i>Coast.</i>
10. Chinese Empire	PE-KING'	<i>R. Pei-Ho'</i> (<i>pê-hô</i>).
11. Tur-kes-tan'	BO-KHA'-RA (<i>bô-kâ'-râ</i>) ..	<i>In the Interior.</i>
12. Si-be'-ria	IR-KUTSK'	<i>R. An-ga'-ra.</i>
13. Ja-pan'	YE'-DO	<i>I. of Ni-pon'.</i>

Of **Burmah**, **Siam**, and **Annam**, we know very little, but their productions are similar to those of **India**. **Turkestan** is an immense plain inhabited by *wandering tribes*. Trade is carried on by *caravans*, between **RUSSIA** and **PERSIA**.

LESSON 22—Continued.

THE FIVE GREAT OCEANS—(Continued).

(D)—3. The **Indian Ocean** is shaped something like a triangle (Δ), it has **Africa** on the *west*, and **India** and **Australia** on the *east*, and gets its name because its waters wash *three sides* of the *two* Indian Peninsulas. Its width in the south is very great, and its area about 23 million square miles. Its waters are warmer than those of the other oceans.

It has no large openings except the **Bay of Bengal'** and the **Ara'bian Sea**.

It has three large rivers running into it—the **In'dus**, the **Gan'ges** (*gān'-jēz*), and the **Brahmapu'tra**, all of which flow through India.

The largest islands are **Madagas'car**, **Ceylon'**, **Suma'tra**, and **Ja'va** (*jā'-vā*). These are all continental islands.

This sea is remarkable for its stormy winds. These winds in summer and winter are known as **monsoons'**. The winter wind is the *north-east monsoon*, and the summer one the *north-west monsoon*.

Lesson 23.—Wednesday Morning. Work these Sums.

PERCENTAGES.

- (1) What per cent is 10 of 3025 ?
- (2) A city which numbered 94,376 people in 1871, had, in 1881, increased to 117,970 ; find the percentage of increase.
- (3) Find the percentage of scholars who failed in each subject when 15 failed in arithmetic, 10 in reading, and 12 in writing, in a school of 250 children.
- (4) Compare the compound and simple interest on £10 10s. at the end of 3 years at 5 per cent per annum.
- (5) A gentleman who paid away $\frac{2}{3}$ of the money he had in his purse, was robbed of $\frac{1}{3}$ of the remainder ; he still had £3 15s. left. How much had he at first ?

Latin Prefixes.—Learn and Write.

6. **cis** = *on this side* : as *cisalpine*, on this side the Alps ; opposed to *transalpine*.
7. **con** = *together*, and takes the form of **co**, **cog**, **col**, **com**, **cor** : as *connect*, to bind together ; *coeval*, *cognate*, *collect*, *comply*, *correct*.
8. **contra**, sometimes changed into **contro** or (**counter**) = *against* : as *contradict*, to speak against ; *controvert*, *counteract*.
9. **de** = *down* : as *depose*, to place down ; *describe*, *depute*.
10. **dis**, sometimes changed into **di** or **dif** = *asunder* : as *disseminate*, to scatter seeds asunder ; *divert*, *diffuse*.

Lesson 24.—Thursday Morn. Grammar. Write and Learn.

Ex. 1. *Analyse and Parse the words in italics.*

To-night I saw the sun set ; he set and left *behind*
The good old year, the dear old time, and *all my peace* of mind ;
And the new year's coming *up*, mother, *but* I shall never see,
The blossom on the blackthorn, the leaf upon the tree.—(Tennyson.)

Ex. 2. *Paraphrase the above (i.e., turn it into prose).*

Ex. 3. *Correct these sentences (if wrong), and show why they are wrong* : Neither John nor James *was* there. The number of names together *were* about an hundred and twenty. Neither of them *are* remarkable for beauty.

Ex. 4. *Give the meaning of these words, showing the force of the prefix* : Ungodly, overflow, outshine, upheave, withdraw, undermine, overcome, undertake.

Latin Roots.—Learn and Write.

cano = I sing ; **cantus** = sung.

chant (Fr.), to sing | *precentor*, a leader of singing

enchant, to charm, to delight | *canticle*, a song

cavus = hollow.

cave, } a hollow place in the | *cavity*, a hollow place

cavern, } ground | *concave*, hollowed out

Lesson 25.—Friday Morning. Work these Sums.

(1) How much is $2\frac{1}{2}$ per cent on £4278 15s. ?

(2) If in a building there are 3 parts stone and 1 part marble, what is the percentage of each ?

(3) The population of a certain county was 529,000. If 49 per cent of these were females, find the number of each sex.

(4) Simplify $\frac{22.4}{.25} + \frac{250}{.8} + \frac{1.2}{.0075}$

(5) Twenty-five years ago a man was four times as old as his son whose present age is 33. What is the present age of the father ?

COMPOSITION.—Write a **letter** to a Frenchman, who knows nothing about *cricket*, describing *how you play the game*, so that he will understand what is the object aimed at by the players.

SIXTH WEEK.**Lesson 26.—Monday Morning. Learn.**

PSALM CXIX., Verses 41—48 ; OR ELSE LEARN—

MARK ANTONY'S ORATION—(Continued).

If you have *tears*,⁵⁴ prepare to shed them now.

You all do know this *mantle*.⁵⁵ I remember

The first time ever Cæsar put it on ;

'Twas on a summer's evening, in his tent ;

(60) *That day he overcame*⁵⁶ *the Ner'-vi-i* :—⁵⁷

[GO TO NEXT PAGE.]

LESSON 26—Continued.

- Look! in this place ran Cassius' dagger through;
 See what a *rent*⁵⁸ the *envious Casca*⁵⁹ made:
 Through this the *well-beloved*⁶⁰ Brutus stabbed;
 And, as he plucked his *cursèd steel*⁶¹ away,
 (65) *Mark*⁶² how the blood of Cæsar followed it,
*As rushing*⁶³ out of doors to be *resolved*⁶⁴
 If Brutus so unkindly knocked, or no;
 For Brutus, as you know, was Cæsar's *angel*.⁶⁵
 Judge, O you gods, how dearly Cæsar loved him!

54. If you have any tears to shed for Cæsar. 55. The upper cloak, called the "*toga*." 56. On the day that he conquered. 57. A number of small tribes round the R. Scheldt. Their country now forms part of Belgium. This was one of Cæsar's greatest victories. Out of 50,000 of the soldiers of the Nervii only 500 remained after the battle (B.C. 57). 58. A hole made by tearing. 59. Envy and malice prompted the assassins to kill Cæsar. Casca was the conspirator who aimed the first thrust at Cæsar. 60. Brutus was the friend whom Cæsar loved and trusted most. 61. His dagger, which had done so much harm. 62. Notice, see. 63. As if rushing. 64. To know for certain. 65. His most particular friend; his darling. Brutus, like a guardian spirit, was always with Cæsar, who loved him as if he had been an angel.

Draw maps (A) Scotland, islands, &c.; (B) Europe; (C) Chinese Empire.

Lesson 27.—Tuesday Morn. Geography. Write and Learn.

SCOTLAND—ISLANDS.

(A)—There are above 700 islands belonging to Scotland, but only about 170 are inhabited. They lie chiefly on the *west* and *north*.

On the *NORTH*.—The *Ork'-neys*, separated from the mainland by the *Pent'-land Firth*. Only a few of them, which afford good sheep pasturage, are inhabited.

The *Shet'-land Islands* lie about 50 miles north of the Orkneys. They are bleak, dreary, and destitute of trees.

On the *WEST*.—The *Heb'-rides* (*hěb'-rî-děz*), which are generally rugged and mountainous, with large tracts of moorland and pasture land. They are divided into two groups—

(1) The *Outer Hebrides*, the largest islands being *Lew'-is* and *North and South Uist* (*wîst*).

(2) The *Inner Hebrides*, including *Skye*, *Mull*, *Staf'-fa*, *I-o'-na* (*î-ô'-nă*), *Ju'-ra*, *Is'-lay* (*î'-lay*).

Skye is noted for beautiful scenery, and *Staffa* contains a curious cave called *Fin'-gal's Cave*. *St. Columba*, who landed from Ireland about 1800 years ago (A.D. 565), lived on *Iona*, and preached Christianity there.

Bute and *Ar'-ran*, two important islands, in the Firth of Clyde, form the county of Bute.

LESSON 27—Continued.

EUROPE—PENINSULAS, &c.

(B.)—**Scan-di-na-vi-a**, including the countries of *Sweden* and *Norway*; **Jut'-land**, or the **Da'-nish peninsula**; the **Span'-ish peninsula**, including *Spain* and *Portugal*. This last is often called "**The Peninsula**."

Italy, **Turkey** and **Greece**, in the *Mediterranean Sea*, and the **Cri-me-a**, *south* of *Russia*, in the *Black Sea*, are all peninsulas.

It is a curious fact that most of the great peninsulas of the world point to the *south*. The chief exceptions are the **Danish peninsula**, in *Europe*, and the peninsula of **Yuc-a-tan'**, in *Central America*, both of which point *northward*.

The *isthmus* joining **Spain** and **Portugal** with *France*, is occupied by the **Pyr'-en-ees Mts.** The tract of land joining *Italy* to the mainland consists in great part of a low and very fertile plain, called the **Plain of Lom'-bar-dy**.

ASIA—CHINESE EMPIRE.

(C.)—This Empire, one of the largest in the world, consists of **China Proper**, **Co-re'-a**, **Ti-bet'**, **Man-chu'-ri-a**, **Mon-go'-li-a**, and the **Loo-Choo Is.** It includes the greater part of the *centre* and *east* of *ASIA*, and contains $4\frac{1}{2}$ millions of square miles.

China Proper is the chief division, the rest, though having native rulers, are all dependent upon the Emperor of China, who sanctions their laws or imposes tribute. The chief rivers are the **Ho-ang-Ho** (*wǎng-hō'*) and the **Yang-tse'-Kiang'** (*yǎng-tsē'-kē-āng'*).

Tibet and **Mongolia** are mountainous, and are partly separated by the desert of **Go'-bi** or **Sha'-mo**.

China Proper is a beautiful and well cultivated country, and very densely populated.

Agriculture is the chief occupation of the people. **Rice** on the low lands and **tea** on the mountain slopes in the *south-east*, with **tobacco** and **cotton** in the middle portions, being the chief objects of culture. **Coal** and **porcelain clay** are abundant.

The Chinese dislike foreigners, and we therefore know little about the *interior* of the country.

Pe-king' ($1\frac{1}{2}$ millions), in the *north*, on the *R. Pei-Ho'* (*pā-hō'*), is the capital. **Nan-king'**, on the *Yang-tse*, was formerly the capital.

There are now several ports open to all foreigners. **Can-ton'**, on *Canton River*, **A-moy'**, **Fu-chow'**, **Ning-po'**, **Shang-hai'** (*shāng-hī'*) at the mouth of the *R. Yang-tse-kiang*, and **Ti-en-tsin'** (*tē-ēn-tsin'*), the port of *Pekin*, on the *Pei-Ho'*, are the chief ones.

Population, 556 millions. *Religion*, Buddhism. *Government*, Despotic.

LESSON 27—Continued.

THE FIVE GREAT OCEANS—(Continued).

(D)—4. The **Arctic Ocean** is situated round the North Pole, and coincides, for the most part, with the **North Frigid Zone**. It is nearly circular in form, and has an area of from 3 to 4 millions of square miles.

It is joined to the Atlantic and Pacific oceans by *two* passages. A *wide* one between Norway and Greenland, and the narrow one of **Beh'ring Strait** opening into the Pacific.

The **White Sea** in *Russia*, and the **Gulf of O'bi** in *Siberia*, are its chief openings in the *Old World*. In the *New World* it has broken up the northern part of the American continent into an immense number of large islands.

Seals and white bears are found in great numbers on the land.

Several of the large rivers of the world are drained into it, the chief being the rivers **Le'na**, **Yenise'i** (*yén-ē-sā'-ē*), and **O'bi**, in *Asia*, and the **Mackenzie**, in *North America*.

The principal islands are **Spitzberg'en** (*g hard*), and **Novai'a Zem'lia** in the *Old World*, and the **Far'ry Is.**, **Bank's Land**, **Prince Albert Land**, **Melville' Is.**, **Prince of Wales Is.**, and **Cock'burn Is.**, off the American coast.

From the end of September to the beginning of May, no sun is visible, the only light being that given by the moon and stars, and the **auro'ra** or "Northern Lights."

Lesson 28.—Wednesday Morning. Work these Sums.

(1) What percentage of 850 is $59\frac{1}{2}$?

(2) How much per cent does a druggist gain by his dishonesty if he uses a 7.5oz. weight instead of one of 8oz.?

(3) Find the increase per cent in the population of Ireland, it being 7767401 in 1831, and 8175124 in 1841.

(4) Find a sum of money, such that $5\frac{2}{3}$ of it shall be equal to 7.2 of £5 3s. 9 $\frac{1}{2}$ d.

(5) I leave home at 9 o'clock on Monday morning, and return in exactly 5 days' time. My watch is quite right when I leave home, but I know it loses 17 seconds per hour. What time will it show when I return?

Latin Prefixes.—Learn and Write.

11. **ex** and **e**=*out*; sometimes take the forms of **ec**, **ef**: as *eject*, to throw out; *expel*, to drive out; *eccentric*, *anecdote*, *efface*.
12. **extra**=*without* or *beyond*: as *extravagant*, wandering beyond bounds; *extraordinary*.

[TURN OVER.]

LESSON 28—Continued.

13. **in**, when prefixed to an adjective=*not*, and takes the forms of **ig, il, im, ir**: as *inattentive, ignorant, illiterate, immature, irregular*.
14. **in**, when prefixed to a verb=*in* or *into*, and takes the forms of **em, en, il, im, ir**: as *include, to shut in; induce, embrace, encourage, illuminate, impose, irrigate*.
15. **inter** (or **enter**)=*between*: as *intersect, to cut between; interpose, intermediate, entertain*.

Lesson 29.—Thursday Morn. Grammar. Write and Learn.

Ex. 1. *Analyse and Parse the words in italics.*

Seen at a little distance as she walked across the churchyard and down the village, she seemed to be attired in pure white, and her hair looked like a dash of gold on a lily.—(George Eliot.)

Ex. 2. *Correct these sentences, and show why they are wrong:* This was the *most unkindest* cut of all. I'm just as busy now as when you *was* here. Go and *lay down* on the sofa.

Ex. 3. *Place suitable Saxon prefixes before these words:* Lead, grow, rich, rule, live, start, kind, head.

Latin Roots.—Learn and Write.

	centum = a hundred.	
<i>cent</i> , the hundredth part of a dollar (an American coin)		<i>centurion</i> , the captain of a hundred soldiers
<i>century</i> , a hundred years		<i>per cent</i> , for a hundred
corpus = a body.	corporis = of a body.	
<i>corps</i> (Fr.), a body of soldiers		<i>corpse</i> , a dead body
<i>corporation</i> , a fat body; a number of men with power to act as one		<i>corpulent</i> , fat, bulky
		<i>corset</i> , a covering for the body; a pair of stays
creo = I create.	creatus = created.	
<i>create</i> , to make out of nothing		<i>creature</i> , anything created
<i>creator</i> , one who creates		<i>recreate</i> , to refresh

Lesson 30.—Friday Morning. Work these Sums.

- (1) What percentage of £6 15s. is 27s.?
- (2) How much per cent is pure gold, when 22 parts out of 24 are pure?
- (3) A man is bankrupt; his assets amount to £2,092 10s., and his debts to £13,950. What percentage of his debts can he pay?
- (4) What number is that which leaves 3 as a remainder, when it is divided by either 7, 6, or 9?

[GO TO NEXT PAGE.]

LESSON 30—Continued.

(5) If $1\frac{1}{2}$ yards of cloth cost $3\frac{1}{2}$ s., what is the value of $15\frac{1}{2}$ yds.?

COMPOSITION.—Write an **essay** on these lines of Longfellow—

“Lives of great men all remind us,
We can make our lives sublime.”

Show the meaning of the passage, and give the context. Apply the lesson to everyday life. [Sublime, from L. *sublimis*=elevated, means high, lofty, and grand by reason of our good qualities or our noble actions, and therefore worthy to be imitated.]

SEVENTH WEEK.

Lesson 31.—Monday Morning. Learn.

PSALM CXIX., Verses 49—56; OR ELSE LEARN—

MARK ANTONY'S ORATION—(Continued).

- (70) This was the *most unkindest*⁶⁶ *cut*⁶⁷ of all ;
For when the noble Cæsar saw *him*⁶⁸ stab,
*Ingratitude*⁶⁹ more strong than *traitor's*⁷⁰ arms,
Quite *vanguished*⁷¹ him : then *burst his mighty heart* ;⁷²
And, in his mantle, *muffling*⁷³ up his face,
(75) Even at the *base*⁷⁴ of *Pompey's statue*,⁷⁵
Which all the while ran blood,⁷⁶ great Cæsar fell.
Oh, what a fall was there, my countrymen !
Then I, and you, and all of us *fell down*,⁷⁷
Whilst *bloody treason*⁷⁸ *flourished*⁷⁹ over us.

66. A double superlative ; often used by Shakespeare. 67. Wound. 68. Brutus. 69. The return of evil for good. 70. One who plots against the sovereign, or the government of a country. 71. Overcame. 72. Antony represents Cæsar as dying heart-broken at seeing Brutus, for whom he had done so much, among the assassins. 73. Muffle, to wrap up closely. 74. The foot. 75. The statue erected to Pompey the Great (who preceded Cæsar), in the Forum, or square at Rome. 76. Which all the while was streaming with the blood which flowed from Cæsar's wounds. 77. Neglected their duty of protecting Cæsar, as they had promised when he was made emperor. 78. Treason which caused blood to be shed. 79. Triumphed ; prevailed.

Draw maps (A) Scotland, mountains, &c. ; (B) Europe, mountains, &c. ; (C) Japan.

Lesson 32.—Tuesday Morn. Geography. Write and Learn.

SCOTLAND—SURFACE.

(A).—Above two-thirds of Scotland is mountainous. The country is divided into *two* districts, the **Highlands** and the **Lowlands**. Between them is a broad *plain* or *valley*, called **Strath-more**'. This "**Great Plain**" runs north-east from the *R. Forth*, nearly to the mouth of the *Dee*.

Most of the *northern* and *western* part of Scotland is in the **Highlands** ; the **Lowlands** form the greater part of the *southern* and *eastern* portion.

[TURN OVER.]

LESSON 32—Continued.

In the **Highlands** are the **Gram'-pi-an Mountains**, which stretch from the *Firth of Clyde* to Aberdeen. The highest points are **Ben Ne'-vis** (4,400 feet), **Ben Mac-dhu-i'** (*măk-dū-i'*), and **Ben Lo'-mond**.

Ben Ne'-vis is the highest point in the **British Islands**; if it were 150 feet higher its top would be always covered with snow.

North of the Grampians the country is called the **Northern Highlands**; it is covered with wild and rugged heaths and moorlands.

Between the Grampians and the Northern Highlands is a valley called **Glen-more'**, or "*The Great Glen*," containing **Loch Loch'-y** and **Loch Ness**.

EUROPE—MOUNTAINS.

(B).—More than two-thirds of Europe is a **level plain**, called "**the Great Plain**," which stretches across the centre of the Continent from the North Sea to the Ural Mountains. All the chief mountain ranges lie either to the *south* of this plain, or to the *north-west* of it. The chief ranges are :—

The **Pyr'-en-ees** between *France* and *Spain*, the **Alps** in *Switz'-er-land*, the **Ap'-en-nines** in *Italy*, the **Car-pa'-thi-ans** in *Austria*, the **Bal'-kans** in *Turkey*, the **Cau'-ca-sus** between *Russia* and *Asia*, and the **Scan-di-na'-vian Mts.** in *Norway* and *Sweden*.

The **Alps** are the highest mountains in Europe; they almost cover *Switz'-er-land* and separate it from *Italy*, *France*, and *Austria*.

The tops of the high peaks are covered with snow. **Mont Blanc** (*môn-blăng*), 15,800 feet (or about three miles) high, is the highest summit. A railway tunnel, $7\frac{1}{2}$ miles long, has been cut through the Alps, between France and Italy, near **Mont Cen-is'** (*să-neess'*); and another one, $9\frac{1}{4}$ miles long, under **Mt. St. Got'-hard**, was opened May, 1882.

ASIA—EMPIRE OF JAPAN.

(C).—**Ja-pan'** consists of a group of islands in the Pacific, off the *north-east* of Asia, of which the principal are **Ni-pon'** (*ně-pôn'*), **Shi-ko'-ku** (*shě-kō'-koo*), **Ki-u'-shi-u'** (*kě-oo'-shě-oo'*), and **Ye'-zo** (*yă'-zō*). The total area is a little larger than that of the British Islands.

These islands are rugged and irregular. A chain of mountains runs through the whole of them, **Fu'-si-ya'-ma** (*foo'-sē-yă'-mă*), in Nipon, 14,000 feet high, being the highest peak. All the islands contain *active volcanoes*, and *earthquakes* are frequent, doing great injury. The climate is similar to that of the British Islands.

The **cow**, and a small **buffalo**, are used as beasts of burden. The people do not use milk and butter.

AGRICULTURE is largely followed, **rice**, **tea**, **cotton**, and **silk** being produced, but the *minerals* form the great wealth of the country, **gold**, **silver**, and **copper** being very abundant.

[GO TO NEXT PAGE.]

LESSON 32—Continued.

The **MANUFACTURES** of **silk**, **cotton**, and **porcelain** are excellent.

The **Japanese** are a clever, intelligent people, and are gradually assuming the manners and customs of *Western Europe*. They have now Railways, Telegraphs, Post-offices, Police, and Soldiers, similar to our own; and the English and French languages are taught in all the principal schools.

The **GOVERNMENT** is *despotic*, under an Emperor, called the **Mi-ka'-do** (*mī-kā'-dō* or *mē-kā'-dō*). The capital is **To-ki-o** (*tō-kē'-yō*), formerly called **Ye'-do** (*yā'-dō*) (800,000), on the east coast of **NIPON**. **Hak-o-da'-ti**, in **YEZO**, and **Na-ga-sa'-ki**, in **KIUSHIU**, are important ports. The population of the country is about 36 millions.

Till 1858 the British were not allowed to visit Japan, the Dutch being the only foreigners permitted to carry on trade.

THE FIVE GREAT OCEANS—(Continued).

(D)—5. The **Antarctic Ocean** is situated round the South Pole, and coincides nearly with the **South Frigid Zone**. Very little is known respecting it. Its area is estimated at about three millions of square miles.

It contains **immense tracts of land**, which attain great elevation, and at least one active **volcano** is known. There appears to be more land and ice than in the Arctic Circle, but the land has never been approached, the ice extending so far from it into the sea, and the whole region is nearly, if not quite, destitute of human life.

Since the waters of the oceans are all so connected together, there are no *natural* and *distinct boundaries* between them as on the land.

The meridian of **South-West Cape** in *Tasmania* separates the Pacific from the Indian Ocean, and the meridian of **Cape Horn** separates it from the Atlantic. The meridian of **Cape Agul'has** (*d-gool'-yās*), in *Cape Colony*, is the separating line between the Atlantic and Indian Oceans.

Lesson 33.—Wednesday Morning. Work these Sums.

- (1) What percentage of £15 12s. 6d. is £1 1s. 10½d.?
- (2) What sum should be insured at £3 6s. 8d. per cent on goods worth £10,343 6s. 8d., that the owner may receive, in case of loss, the value of both goods and premium?
- (3) One farmer had 250 sheep, 15 of which died; another possessed 320, of which 20 died. Which farmer suffered the greater loss, and by what percentage?

[TURN OVER.]

LESSON 33—Continued.

(4) A and B together own 396 acres of land. Now $\frac{2}{3}$ of A's farm is equal to $\frac{3}{4}$ of B's farm. How many acres are owned by each?

(5) Multiply 3 acres 2 roods 19 poles by '325.

Latin Prefixes.—Learn and Write.

16. **intro** = *within* : as *introduce*, to lead within.
17. **ne** or **nec** = *not* : as *nefarious*, not to be spoken of ; *neglect* [neg = nec].
18. **non** = *not* : as *nonsense*, not sense ; *nonentity*, *nonage*, *non-descript*.
19. **ob** = *in the way of* or *over against*, and takes the forms of **o**, **oc**, **of**, **op**, **os** : as *obstruct*, to build in the way of, to hinder ; *omit*, *occur*, *offend*, *oppose*, *ostentation*.
20. **per**, **pel**, or **pol** = *through* or *thorough* : as *perfect*, to make thorough ; *pellucid*, *pollute*.
21. **post** = *after* : as *postscript*, written after ; *postpone*.

Lesson 34.—Thursday Morn. Grammar. Write and Learn.

Ex. 1. *Analyse and Parse the words in italics.*

High above all a cloth of state was spread,
 And a rich throne, *as bright as* sunny day ;
 On which *there* sat, most *brave* embellished,
 With royal robes and gorgeous array,
 A maiden Queen *that* shone *as* Titan's ray.—(*Spenser.*)

Ex. 2. *Correct these sentences (if wrong), and show why they are wrong* : Mary and *me* comes to school every day. *Who* shall I take with me ? Neither death nor torture *was* sufficient to subdue him.

Ex. 3. *Make verbs from these words* : Stupid, close, fine, large, dark, sake, strength.

Latin Roots.—Learn and Write.

	crēdo = I believe ; creditus = believed.	
<i>creed</i> , that which is believed		<i>credible</i> , that which may be believed
<i>credit</i> , trust		<i>creditable</i> , worthy of belief
<i>credence</i> , belief		<i>creditor</i> , one who trusts
	crux = a cross ; crucis = of a cross.	
<i>crucify</i> , to put to death on a cross		<i>cruiser</i> , a pirate ; originally one who, bearing a cross, plundered
<i>excruciate</i> , to torture as if on a cross		infidels
<i>crusade</i> , a religious war		

Lesson 35.—Friday Morning. Work these Sums.

- (1) What percentage of $5\frac{1}{2}$ tons is $8\frac{1}{2}$ cwt.?
- (2) There are 350 names on a certain school register, but only 80 per cent attend regularly. Find (a) the number of regular scholars; (b) the number of irregular scholars.
- (3) If there is 49·856 per cent of oxygen, 43·265 per cent of carbon, and the remainder hydrogen, in a pound of sugar; how many pounds of each of these materials are there in one ton of sugar?
- (4) A and B do $\frac{1}{10}$ of a piece of work in 2 days when working together. B then leaves off, and A finishes the work in half a day. In what time could each do it alone?
- (5) Divide 78962 by 3.

COMPOSITION.—Write an **account** of *Gunpowder Plot*, stating the cause of the plot, the carrying out of the plot, and the results which followed after it. Why is it advisable to discontinue the observance of the fifth of November?

EIGHTH WEEK.**Lesson 36.—Monday Morning. Learn.**

PSALM CXIX., *Verses* 57—64; OR ELSE LEARN—

MARK ANTONY'S ORATION—(Continued).

- (80) Oh, now you weep; and I *perceive*⁸⁰ you feel
The *dint of pity*.⁸¹ these are *gracious drops*.⁸²
Kind souls, what, weep you when you but behold
Our Cæsar's *vesture*⁸³ wounded? Look you here,
Here is himself, *marr'd*,⁸⁴ as you see, with traitors.
Good friends, *sweet friends*, let me not stir you up
To such a *sudden flood*⁸⁵ of mutiny,
They that have done this deed are honourable:—
What *private griefs*⁸⁶ they have, alas! I know not,
That made them do it:⁸⁷—they are wise and honourable,
- (90) And will, no doubt, with *reasons answer you*.⁸⁸

80. See. 81. The impression or effect of pity which causes you to weep.
82. Tears which show your kind and feeling hearts; generous. 83. Dress, clothing. Cæsar's toga. 84. Injured; disfigured. 85. The people now began to feel sorry for Cæsar, and determined to be revenged on Brutus and the rest.
86. Personal wrongs, as opposed to the general charges brought against him.
87. What private grievances they have that made them do it, alas! I know not. 88. Give a reason why they killed Cæsar.

Draw maps (A) *Scotland, mountains, &c.*; (B) *Europe, mountains, &c.*; (C) *Western Asia.*

Lesson 37.—Tuesday Morn. Geography. Write and Learn.**SCOTLAND—MOUNTAINS.**

(A).—The **Lowlands** contain many ranges of hills. The chief ones are the **Camp'sie** (*ie = ē*) **Hills**, in *Stir'ling*; the **Och'il** (*ōk'ū*) **Hills**, in *Perth*; and the **Sid-law Hills**, in *Perth* and *For'far*.

These hills form nearly a continuous line. They run parallel with the **Grampians**, and enclose the **Plain of Strath-more'**, the most fertile part of Scotland.

South of the Firth of Forth are the **Pent'-land Hills**, and the **Lam'-mer-muir Hills**.

The **Low-ther** or **Lead Hills**, in *Dum-fries' (dūm-frēss')*, are a continuation of the **Chev'-i-ots**. They contain several high points and have many valuable *lead* mines.

The **Cheviots** are really an English range, and form part of the boundary between England and Scotland.

EUROPE—MOUNTAINS—(Continued).

(B).—The **Pyr'-en-ees** form the boundary between *France* and *Spain*. **Mount Mal-a-det'-ta** is the highest peak.

The **Ap'-en-nines** are joined to the **Alps**, and run through *Italy*. They contain valuable marble quarries.

Mt. Ve-su'-vi-us, 4,000 feet high, is a celebrated volcano, on the **Bay of Naples**, not far from the **Apennines**.

The other volcanoes of Europe are **Mount Et'-na**, in the island of *Sic'-ily*, 11,000 feet high; and **Mount Hec'-la**, in the island of *Ice'-land*, 5,000 feet high.

The **Car-pa'-thi-ans** form a semicircle along the *north* and *east* of *Aus'-tri-a*; they contain valuable gold, silver, and copper mines.

The **Bal'-kans** run across *Turkey* from *east* to *west*.

The **Cau'-casus Mts.** run between the **Black Sea** and the **Caspian Sea**. They partly divide Europe from Asia.

The **Scan-di-na'-vian Mts.** are chiefly in *Norway*.

The **U'-ral Mts.** form part of the boundary between *Europe* and *Asia* on the *east*.

The **Alps** are singularly destitute of useful minerals; whilst the **Carpathians**, the **Scandinavians**, and the **Urals** are especially rich.

ASIA—WESTERN COUNTRIES.

(C).—(1) **Turkey in Asia**, capital **SMYR'-NA** (180,000) on the **Æ-ge'-an Sea**, consists of several provinces in the extreme *west* of Europe. The **Tau'-rus Mts.** run along the shores of the **Mediterranean**. There are numerous bleak *tablelands*, but the valleys are beautiful and fruitful.

Figs, *raisins*, and *rice* are exported from **Smyr'-na** and **Bey'-rout** (*bā'-root*), in *Syria*. **Si-nope'** (*sē-noob'**) and **Tre'-bi-zond** on the **Black Sea**, and **Bas'-ra** on the **Shat-el-Arab**, are noted ports.

[GO TO NEXT PAGE.]

* *Sē-nō'-pē* is the name it bore as an ancient Greek colony, but is not the name by which it is now called among the Turks.

LESSON 37—Continued.

(2) **Arabia** consists of an elevated *tableland*, most of which is *desert*, intersected by ranges of mountains. Round the coast are a few fertile tracts. **Yem'en**, a district in the *south-west*, belonging to Turkey, grows excellent *coffee*.

The climate is the driest in the world. *Coffee, gums and dates, drugs and pearls*, are exported.

Mus-cat', on the *north-east* coast, **A'-den** and **Mo'-cha**, on the *Red Sea*, and **Ma-kal'-la** and **Shehr** (*shēr*), on the *south* coast, are ports.

Arabia has no settled form of government. Numerous chiefs, more or less despotic, rule various parts of the interior of the country. Those parts of the coast not under Turkish rule are subject to the Sultans of O-man' and Had-ra-maut'.

(3) **Persia**. Capital, **TE-HE-RAN'** (*tā-hēr-ân'*) (85,000). A *tableland* containing several salt and sandy deserts, intersected by mountains, occupies most of the country.

Silks, carpets, and jewellery are the chief manufactures. The people are exceedingly polite, and some of them are also very learned. The bulk of the nation is of the Mahometan religion. The government is despotic, under a ruler called a **Shah** (=king).

THE OCEAN.

(D). **Depth of the Sea**.—In some parts the bed of the ocean closely resembles the surface of the land, but as a rule it is much more regular than the land.

There are **deep valleys, immense tablelands and plateaux, and rocky ridges**, rising sometimes above the surface, forming **islands**, or near to the surface, and forming **sunken reefs**; but great irregularities are much less common than on the land, the ocean floor being, on the whole, **gently undulating**. Near to the land the ocean is, as a rule, shallow.

The seas round England are of no great depth, and no part of the **North Sea** is more than 400 feet deep. The deepest part of the **Straits of Dover** is only about 200 feet. Inland seas are always shallow—the **Baltic, Mediterranean, and Black Sea** being notable examples, especially the first.

The **greatest depth** of the *Atlantic* was ascertained by the *Challenger Expedition* (1872 to 1876) to be about 18,000 feet. In the *Pacific* the deepest part was found off the island of **New Guinea**, where a depth of $5\frac{1}{2}$ miles was measured. The deepest part of the *Indian Ocean* was found to be 6,500 feet. In the *Polar Seas* no depth has been found greater than 2,000 feet, and generally these two seas are very shallow.

The **average depth of the ocean** appears to be about 15,000 feet, or nearly 3 miles. The greatest depth was once thought to nearly correspond to the highest point on land (**Mt. Ever'est**, in the *Himalayas*, 29,000 feet high), but this is now doubted.

A depth of 23,400 feet, or nearly $4\frac{1}{2}$ miles, has been measured off the island of **St. Thomas**, in the *Gulf of Guinea*, but it is doubtful whether this measure is correct.

Lesson 38.—Wednesday Morning. Work these Sums.

- (1) What percentage is 9m. 5fur. of 275 miles?
- (2) If I sell a pair of boots for 15s., I lose 10 per cent; what must I sell them at to gain 10 per cent?
- (3) Find the average of $13\frac{1}{2}$, 21, $7\frac{1}{2}$, $\cdot 002\frac{3}{4}$, $3\frac{1}{2}$, 0, $106\frac{1}{2}$, and $57\frac{1}{10}$, and express the fraction decimally.
- (4) What sum of money will amount to £138 2s. 6d. in 15 months at 5 per cent simple interest?
- (5) A lady left a sum of money which was to be equally divided amongst 48 poor women, such that, after a deduction of 6d. in the pound, each received £3 3s. $4\frac{1}{2}$ d. Find the sum left.

Latin Prefixes.—Learn and Write.

22. **pre**=*before*: as *prefix*, to place before; *predict*, *precede*.
23. **pro**=*forth* or *forward*, and takes the forms of **pol**, **por**, **pur**: as *promote*, to move forward; *project*, *produce*, *pollute*, *portrait*, *purlin*.
24. **re** or **red**=*back* or *again*: as *resume*, to take back; *re(d)em*, *resolve*.
25. **retro**=*backward*: as *retrospect*, a looking backward; *retrograde*.
26. **se** or **sed**=*aside* or *apart*: as *secede*, to go apart; *sedition*.
27. **sine**, **sin**, or **sim**=*without*: *sinecure*, an office without any duty; *sincere*, *simple*.

Lesson 39.—Thursday Morn. Grammar. Write and Learn.**Ex. 1. Analyse and Parse the words in italics.**

Upon *that* open level stood a grove,
 The *wish'd-for* port to *which* my course *was* bound.
Thither I came, and *there*, *amid* the gloom,
 Spread by a brother-hood of lofty elms,
 Appeared a roofless hut; *four naked walls*
That stared upon each other.—(Wordsworth.)

Ex. 2. Correct these sentences, and show why they are wrong: I am just arrive in time. We shall speedily become as poor as them. Who of all men in the world do you think I saw? It is me. Between you and I.

Ex. 3. Give the meaning of these words so as to show the force of the prefix: Advert, advent, antedate, ancestor, biscuit, circuit, bisect.

Latin Roots.—Learn and Write.

dicto = I say or tell;	dictus = said or told.
<i>dictate</i> , to command	<i>contradict</i> , to speak against; to deny
<i>diction</i> , style of speech	<i>interdict</i> , to forbid
<i>ditto</i> , the same as said	<i>predict</i> , to tell beforehand
<i>indict</i> or <i>indite</i> , to accuse	<i>verdict</i> , a decision given by a jury
dies = a day; diurnus = daily.	(The French form of <i>dies</i> is <i>jour</i> .)
<i>dawn</i> , the break of day	<i>journal</i> , a day book; a newspaper
<i>dial</i> , an instrument to tell the time of day by	<i>journey</i> , a day's travel
<i>diary</i> , a daily account	<i>journeyman</i> , a day-worker.
	<i>sojourn</i> , to dwell day by day

Lesson 40.—Friday Morning. Work these Sums.

- (1) How much per cent is 23gals. 2qts. 1pt. of 315gals.?
- (2) The population of a city is a million; it rises $1\frac{1}{2}$ per cent for 3 years successively; find the population at the end of 3 years.
- (3) If 10gals. of spirits at 18s. 6d. a gal. are mixed with 12gals. at 18s. a gal., how much water must be added to reduce the value to 16s. 8½d. a gal.?
- (4) A person's income is reduced from £750 to £734 7s. 6d. by income tax. How much does he pay in the pound?
- (5) If 100 men make 3 miles of railway in 27 days, in how many days will 150 men make 5 miles?

COMPOSITION.—Write a short **essay** on *Water*, show where it is found, what are the different kinds and their peculiarities (as well, river, sea, and mineral waters), what are the qualities of drinking water, and what are the uses of water generally.

NINTH WEEK.**Lesson 41.—Monday Morning. Learn.**

PSALM CXIX., *Verses 65—72*; OR ELSE LEARN—

MARK ANTONY'S ORATION—(Continued).

- I come not, friends, to *steal away your hearts*:⁸⁹
 I am no *orator*⁹⁰ as Brutus is;
 But, as you know me all, a *plain, blunt*⁹¹ man,
 That love my friend; and that they know *full*⁹² well,
 (95) That gave me public leave to speak of him.
 For I have neither *wit*,⁹³ nor *words*,⁹⁴ nor *worth*,⁹⁵
Action, nor *utterance*,⁹⁶ nor the power of speech,
 To stir men's blood: I only speak *right on*.⁹⁷
 I tell you that which you yourselves do know;
 (100) Show you sweet Cæsar's wounds, poor, poor dumb *mouths*,⁹⁸
 And bid them speak for me. But were I Brutus;
 And Brutus Antony,⁹⁹ there were an Antony
 Would *ruffle up your spirits*,¹⁰⁰ and put a tongue
 In every wound of Cæsar, that should move
 (105) The stones of Rome to rise and mutiny.¹⁰¹

89. Deceive you by working on your feelings. 90. A person able to make a good speech. 91. Honest and out-spoken. 92. Quite. 93. Great knowledge. 94. Fine words. 95. Influence. 96. A good orator makes his speech more impressive by the movement of his hands and the tone of his voice. 97. Just as the words and thoughts come. An oration is generally well studied beforehand. 98. The holes made by the daggers are compared to mouths without tongues. 99. Antony means that if he were as clever a speaker as Brutus, he would stir their hearts. He wishes them to think that Brutus, by his fine speeches, had made a bad cause appear a good one; but that his influence on them is owing to his good cause and not his

[TURN OVER.]

LESSON 41—Continued.

eloquence. 100. Excite their minds. 101. Caesar's wounds would even cause the stones of Rome to rise up against the traitor who had put him to death.

WILLIAM SHAKESPEARE, the chief of English dramatists, was born at Stratford-on-Avon, Warwickshire, in 1564. He died at his native place, April 23rd, 1616. His tragedy of Julius Caesar depicts part of the struggle between the nobility and the people for supreme power, which at last led to the establishment of the empire under Octavianus Augustus. B.C. 27.

Draw maps (A) Scotland, mountains and rivers; (B) Europe; (C) India.

Lesson 42.—Tuesday Morn. Geography. Write and Learn.

SCOTLAND.—RIVERS.

(A).—Scotland contains many rivers. The chief ones rise either in the **Grampians** or the **Lowthers**, and, except the Clyde, empty themselves into the **North Sea**. All the rivers have swift currents, and many of them form waterfalls.

The rivers rising in the Grampians are the **Find'-horn** and **Spey** (*spā*), running *north*, and the **Don**, **Dee**, **Tay**, and **Forth**, running *east*.

The **Tay** (100 miles) is the longest and largest river of Scotland. It receives a great many tributaries and drains many lakes.

The **Forth** (95 miles) rises in **Ben Lo'-mond**, and, with its tributaries, also drains several lakes. It runs into a large estuary called the **Firth of Forth**, which is above 50 miles long and about 40 broad in its widest part.

The **Spey** is a very swift river; large numbers of *salmon* are caught in it.

EUROPE—PLAINS, &c.

(B).—The **Great Plain** occupies more than *two-thirds* of Europe. It includes all *Russia* and the greater part of the countries lying round the *Baltic* and the *North Sea*.

In the *south of Russia* the district is called the **Steppes** (*steps*). Other important plains are—

The **Plain of Hun'-ga-ry**, in *Austria*, *south* of the *Carpathians*.

The **Plain of Rou'-ma'-ni-a** (*roo-mā'-nē-ā*), on each bank of the lower course of the *Danube*.

The **Plain of Lom'-bar-dy** in *North Italy*, a very fruitful plain.

PLATEAUS.—The **Central Plateau** of *Spain*; the **Plateau of Ba'-va'-ri-a** in *South Germany*; the **Plateau of Bo'-he'-mi-a** in the *north-west* of *Austria*.

CLIMATE, SOIL, &c.—The northern parts are cold, the centre is of moderate temperature, and the south warm; the soil is generally fertile. There are large forests in *Russia*, *Germany*, and *Norway* and *Sweden*. *Bears*, *wolves*, and *boars* are found in the large forests.

LESSON 42—Continued.

BRITISH POSSESSIONS IN ASIA.—HINDUSTAN.

(C).—Our chief Possession in Asia is **In'-dia** or **Hin'-dus-tan'**, a large triangular peninsula in the *south*, having the *Bay of Ben-gal'* on the *east*, and the *A-ra'-bian Sea* on the *west*.

This immense country is about 12 times the size of the British Islands, and contains probably 252 millions of inhabitants. A journey across it from *north* to *south*, or from *east* to *west*, would require three months if one travelled 20 miles a day.

It is bounded on the *north* by the **Him-a-la'-ya Mts.**, of which the highest point is **Mt. Ev'-er-est** (29,000 feet, or $5\frac{1}{2}$ miles high).

There are four principal rivers—the **Gan'-ges**, the **Brah-ma-pu'-tra**, and the **Ma-ha-na'-di** (*mā-hā-nā'-dī*), all flowing into the *Bay of Bengal*, and the **In'-dus**, flowing into the *Arabian Sea*.

The heat is very great in the *centre* and the *south*, and all kinds of *tropical produce* grow in abundance.

The country is divided into 8 **Provinces**. The largest ones are—

BEN-GAL'capital **Cal-cut'-ta**.....on the *R. Hug'-li*.

MA-DRAS' **Ma-dras'** „ *B. of Bengal*.

BOM-BAY' **Bom-bay'** „ *A-ra'-bian Sea*.

Each Province is under a *governor*. The seat of government is at **Calcutta**, and the governor of the province of Bengal is the **Governor-General of India**. He is called the **Viceroy**.

British Bur'-mah, on the *east* of Hindustan, now forms one of the Provinces of the Empire. Its capital is **RAN-GOON'**, at the mouth of the *Ir-a-wa'-di*. It yields *cotton* and *teak*.

THE OCEAN.

(D). **Soundings**.—The depth of the sea is measured by **sounding**. A weight, at the end of a line, is allowed to strike the bottom; the length of line passed out is then measured. This method only does for shallow water. In deep water the moment when the weight meets the bottom cannot be observed, because currents cause the line to run out even after the weight comes to rest. After many experiments a "**law of descent**" was discovered. This shows—

(1) That a line does not run out at a **uniform rate**, but slower and slower as the depth increases;

(2) That the moment the weight reaches the bottom the currents cause the line to run out at a uniform rate.

It is thus easy to notice when the weight touches the bottom by observing the rate at which the line runs out.

Density of the Ocean.—Sea water is **heavier** than fresh water, or, in other words, it is said to have a **greater density**, or its "**specific gravity**" is greater than that of fresh water.

A gallon of fresh water weighs 10lbs., the same quantity of sea water will weigh about 10·026lbs. The water of the **Mediterranean Sea** is denser than the ocean. The specific gravity becomes less in all cases near the mouth of large rivers, or in the region of ice-packs and icebergs.

Lesson 43.—Wednesday Morning. Work these Sums.

- (1) Find the percentage of 9 weeks 4 days 9 hours on 175 weeks.
- (2) A grocer uses for a pound weight one weighing 15oz. 8drs., what per cent do his customers lose ?
- (3) Concerts are given on three separate evenings. On the first night £80 was taken, on the second 40 per cent less than this, and on the third a quarter more than on the second evening. What were the average receipts per night ?
- (4) Subtract $\cdot 03$ from $\cdot 0\frac{3}{4}$, and divide the remainder by $\cdot 10\frac{1}{2}$.
- (5) A gentleman, after paying an income tax of 5d. in the £, has a net income of £982 2s. 1d. Find his gross income.

Latin Prefixes.—Learn and Write.

28. **sub**=*under*, and takes the forms of **suc, suf, sug, sum, sup, sus**: as *subtract*, to draw under; *succumb*, *suffer*, *suggest*, *summons*, *support*, *sustain*.
29. **super** (or **sur**)=*above* or *over*: as *superscribe*, to write over; *superstructure*, *survey*, *surmount*.
30. **trans, tra, or tran**=*beyond, across*: as *transfer*, to carry across; *traduce*, *transcribe*, *transalpine*.
31. **ultra**=*beyond*: as *ultramarine*, beyond the sea; *ultramontane*.
32. **vice** (or **vis**)=*instead of*: as *viceroi*, *viscount*.

Lesson 44.—Thursday Morn. Grammar. Write and Learn.

Ex. 1. *Analyse and Parse the words in italics.*

Oh! bury me not in the full churchyard, where rank weeds reeking grow,
 And the poisonous earth, with its *thrice-filled* graves, lies festering below;
 Where the grave *ne'er* wakes a *thought* of death from the careless *passers-by*,
 And the sexton *only* speaks of it as a busy trade to *ply*.—(Carpenter.)

Ex. 2. *Paraphrase the above (i.e., turn into prose).*

Ex. 3. *Explain these prefixes, giving words in which they occur:*
 Ab, con, ex, contra, dis, intro.

Latin Roots.—Learn and Write.

dōcēo = I teach; doctus , taught; discipulus , a scholar.	
doctor , a teacher; a learned man	document , a paper containing proof of anything
doctrine , things taught	discipline , instruction, government, training
docile , teachable [follower]	fendo = I strike or keep off; fensus , struck.
disciple , a scholar; a learner; a	fender , a guard before a fire
defend , to guard from; to protect	offend , to strike against; to annoy
	fence , a wall; a hedge.

Lesson 45.—Friday Morning. Work these Sums.

(1) What is the premium upon a life policy of £2,500 (man's age, 40), the rate being £5 15s. per cent for that age ?

(2) Goods weighing 79 tons 10cwt. 20lb. were so damaged that 18 per cent were rendered unsaleable ; what weight was saved ?

(3) If 18 quarts of beer at 2½d. a quart, and 63 quarts at 4d. a quart, are poured into a barrel containing 18 quarts of water, what is the average price per gallon of the mixture ?

(4) A number of boys raise £3 for their cricket clubs ; one-third of them paid 9d. each, as many more 1s. 3d. each, and the remainder 1s. 9d. each. How many boys were there in the club ?

(5) What part of £2 is $\frac{2}{3}$ of 5 guineas ?

COMPOSITION.—Write an **account** of the *Daisy*. Describe the flower and leaves ("Wee, modest crimson-tippèd flower"—*Burns*), origin of name,—opens at dawn, closes at night, hence = *day's eye*. A sign of spring, and hence beloved.

TENTH WEEK.**Lesson 46.—Monday Morning. Learn.**

PSALM CXIX., *Verses 72—80 ; OR ELSE LEARN—*

FROM LYC-I-DAS.¹—(*Milton.*)

Weep nò more, *woeful*² shepherds, weep no more ;
 For Lyc'-i-das your *sorrow*³ is not dead,
 Sunk though he be beneath the *watery floor* ;⁴
 So sinks the *day-star*⁵ in the ocean bed ;
 And yet *anon*⁶ *repairs*⁷ his drooping head,
 And *tricks*⁸ his beams, and with *new-spangled ore*⁹
 Flames in the *forehead*¹⁰ of the morning sky :
 So Lycidas sunk low, but mounted high,
 Through the *dear*¹¹ might of Him that walked the waves ;¹²
 Where, other *groves*¹³ and other streams along,
 With *nectar*¹⁴ pure his *oozy*¹⁵ locks he *laves*,¹⁶
 And hears the *unexpressive*¹⁷ *nuptial song*,¹⁸
 In the blest kingdoms *meek*¹⁹ of joy and love.
 There *entertain*²⁰ him all the saints above
 In solemn *troops*,²¹ and sweet societies,
 That sing, and singing, in their glory move,
 And wipe the *tears*²² for ever from his eyes.

1. The name Milton gave to his friend Edward King who was drowned in the Irish Sea in his passage from Chester, 1637. The poem, called *Lycidas* (*lîs'-i-dâs*), is a long and beautiful one. 2. Full of woe or sorrow. 3. The one you sorrow for. 4. Into the waters. 5. The sun when he sets. 6. Soon ; quickly. 7. Restores. 8. Adorns. 9. Fresh brilliant rays of golden light. 10. The east. 11. Precious ; of great worth. 12. Our Lord, who walked on the Sea of Galilee (St. Matt. xiv., 25—33). 13. Than those he (*Lycidas*) used

[TURN OVER.]

LESSON 46—Continued.

to walk along when on earth. 14. The drink of the gods, according to the ancients. Any sweet and pleasant drink. 15. Slimy. 16. Washes. 17. = Inexpressible; not able to be expressed; too beautiful to be expressed in words. 18. A wedding song. 19. Meek refers to kingdom. 20. Receive; amuse. 21. Companies of angels. 22. Revelation vii., 27.

JOHN MILTON (born 1608, died 1674) is, after Shakespeare, the greatest English poet. He was a most learned man, a clever writer of prose as well as verse, and an excellent Latin scholar. He was Latin Secretary to Oliver Cromwell, and for the last twenty-two years of his life was totally blind (see Lesson 51). His principal poems are *L'Allegro* (see Standard V., Lesson 51); *Il Penseroso* (see Standard VI., Lesson 56), both written about 1632; *Paradise Lost* (1667) and *Paradise Regained* (1671). His *Ode to the Nativity* (1627) is considered the finest poem in the English Language. Most of his poetry is in "blank verse."

Draw maps (A) Scotland, mountains and rivers; (B) Europe, mountains and rivers; (C) Hindustan, towns.

Lesson 47.—Tuesday Morn. Geography. Write and Learn.

SCOTLAND—RIVERS.

(A).—The rivers rising in the Lowthers are the **Clyde**, running to the *west*, the **Tweed**, running to the *east*, and the **Nith**, running to the *south* into Solway Firth.

The **Clyde** is the chief river of Scotland. It rises in the Lowthers, and after a very winding course of 100 miles, empties itself into the Firth of Clyde. It has no important tributaries.

The **Tweed** rises about 10 miles from the Clyde, and first flows *northward*, and then *eastward*, emptying itself into the North Sea. It drains the greater part of the *eastern Lowlands*, and has valuable salmon fisheries. Its length is about 96 miles.

The other rivers of Scotland are not important. They chiefly serve to drain the lakes, and on the *west* they are nearly all short rapid streams from the mountains. Many of the Scottish rivers have valuable *salmon fisheries*.

EUROPE—RIVERS.

(B).—Europe is *well* watered. About two-thirds of the rivers empty themselves into the *inland seas*—the White, Baltic, and Mediterranean Seas. The largest rivers are—

The **Vol'-ga**, flowing into the *Caspian Sea*.

The **Don**, into the *Sea of Azof*.

The **Dnie'-per** (*nee'-p'r*), **Dnies'-ter** (*nees'-t'r*), and **Dan'-ube**, into the *Black Sea*.

The **North Dwi'-na**, into the *White Sea*.

The **Dü-na**, **Vis'-tu-la**, and **O'-der**, into the *Baltic*.

The **Elbe**, **We'-ser** (*vā'-z'r*), and **Rhine**, into the *North Sea*.

The **Seine** (*sān*), into the *English Channel*, the **Loire** (*lwōr*) and **Ga-ronne'**, into the *Bay of Biscay*, and the **Rhône**, into the *Gulf of Lyons*, all flowing through France.

[GO TO NEXT PAGE.]

LESSON 47—Continued.

The **Dou'-ro** (*doo'-rō*), **Ta'-gus**, **Guad-i-a'-na** (*gwā-dā'-ā'-nā*), **Gua-dal-qui'-vir** (*gwā-dāl-kē'-vēr*), into the *Atlantic*, and the **E'-bro**, into the *Mediterranean*, all draining the Spanish peninsula.

The **Po**, into the *Gulf of Venice*, and the **Ti'-ber**, into the *Mediterranean*.

The largest rivers of Europe are the Volga (2,200 miles), the Danube (1,700 miles), the Dnieper, the Don, and the Rhine (700 miles).

HINDUSTAN—(Continued).

(C).—The **MINES** yield **coal**, **iron**, **copper**, and **gold**, and **diamonds** are found in various parts.

The **SOIL** is generally fertile, but there are large deserts. The principal trees are **teak** (used for shipbuilding), **cocoa**, **banyan**, and **palms**.

Rice, *sago* (the pith of a kind of palm tree), *ginger* (the root of a plant), *pepper* (the seeds of a plant), *indigo* (a blue dye obtained from the leaves and stalks of certain plants), *cotton* (a woolly substance obtained from the "pods" of a plant), *sugar cane*, and *opium* (the juice obtained from the seeds of the white poppy), are all largely cultivated.

Among the wild animals are the lion, the tiger, the panther, the leopard, the elephant, and many kinds of monkeys.

The people are called **Hin-doo's**. They are nearly all *idolaters*, and live chiefly on *rice*.

The chief **trade** of the country is with *Great Britain* and *China*.

The **roads** are very poor. There are now several lines of railway. Large parts of the country are covered with thick forests of *jungle*.

CLIMATE.—On account of its immense size India has a very varied climate. It is one of the hottest countries of the world; among the hills and tablelands the climate is more temperate.

Cal-cut'-ta (800,000), on the *River Hug'-li*, 100 miles from its mouth, is the capital of British India. It is a magnificent city, stretching 5 miles along the banks of the river.

Other large towns are **Al'-la-ha-bad'** (ā) and **Be-na'-res** on the *Ganges*, **Del'-hi** (*dēl'-hē*) on the *Jumna*, a tributary of the *Ganges*, **La-hore'** and **Pesh'-awar** (*pēsh'-our*) **Su'-rat** on the river *Tap'-ty*, and **Ka-ra'-chi** (*kā-rā'-tshē*), near the *Indus*, are important ports.

THE OCEAN.

(D).—**Composition of the Sea**. Sea water differs from fresh water in containing a large quantity of **many substances dissolved in it**.

Every 100 ounces of sea water contains $3\frac{1}{2}$ ounces of mineral substances in solution.

Sea water is salt, and this at once shows us that one of the substances dissolved in it is **common salt**.

[TURN OVER.]

LESSON 47—Continued.

From 100 ounces of sea water $2\frac{1}{2}$ ounces of salt can be obtained.

At one time all the salt used in the **British Islands** was obtained from the sea. This was done by making large shallow pits, filling them with sea water, and allowing it to be evaporated (dried up) by the sun and wind, then filling the pits again and drying up, and so on, until the bottom was covered with a layer of salt and other matters. This was taken out and purified. **Preston Pans**, in Scotland, was a noted place for this manufacture, but heat was used to dry up the water. Many nations still obtain their supply of salt in this way.

There are many other substances dissolved in sea water, such as **Chlo'ride of Magne'sium**, **Chlo'ride of Potas'sium**, **Sul'phate of Lime** (or **gyp'sum** [*jip'-sūm*] from which *Plaster of Paris* is made), **Sul'phate of Magne'sium** (or *Epsom salts*), and very small quantities of **flint** and **Carbonate of Lime** (or *chalk*).

The most important of these are **lime** and **flint**. Though the quantity is so small all the skeletons of the innumerable minute creatures that live in the sea are formed out of these two substances. These skeletons, when the creatures die, fall to the bottom of the water and form immense **beds of chalk**, which extend over wide tracts of the sea bottom. All the innumerable groups of **coral islands** and **reefs**, which are built by the coral insects, are formed from the carbonate of lime, &c., which they extract from the water of the sea.

Lesson 48.—Wednesday Morning. Work these Sums.

(1) I insure my life for £3,000. What premium do I pay at £8½ per cent?

(2) A merchant buys 340 loads of wheat at 8s. a bush., $2\frac{1}{2}$ per cent of it is wasted; he sells 56 per cent of the remainder at 7s. 6d. a bush., 20 per cent at 8s. a bush., and the rest at 10s. a bush. What does he gain or lose by the transaction?

(3) A grocer mixes 40lb. of sugar at 6d. per lb., 30lb. at $5\frac{1}{2}$ d., 45lb. at 5d., and 25lb. at $4\frac{1}{2}$ d. Find the average price per lb.

(4) Find the value of $\cdot 541\bar{6}$ of $4\frac{1}{2}$ cwt.

(5) The product of two decimals is $\cdot 033372$; one of them is $2\cdot 7$; find the other.

Greek Prefixes.—Learn and Write.

1. **a**, or **an** [*d*]=without: as *apathy*, without feeling; *anarchy*, *atheist*, *anonymous*.
2. **amphi** [*ἄμφι*]=round or on both sides: as *amphitheatre*, a round theatre; *amphibious*.
3. **ana**, or **an** [*ἀνά*]=back, again, up: as *analyze*, to resolve; *anatomy*, *anagram*, *analogy*, *anodyne*.
4. **anti** or **ant** [*ἀντί*]=against: as *antipathy*, a feeling against; *antidote*, *antagonist*, *antarctic*.
5. **apo** or **ap** [*ἀπό*]=from: as *apogee*, from the earth; *aphelion*, *apology*.
6. **arch**, **archi**, or **arche** [*ἀρχή*]=chief: as *archbishop*, *architect*, *archipelago*, *archetype*.

Lesson 49.—Thursday Morn. Grammar. Write and Learn.

Ex. 1. *Analyse and Parse the words in italics.*

In there stepped a stately raven of the *saintly* days of *yore*,
Not the least obeisance made he; not a minute stopped or stayed he;
 But with *mien* of lord or lady, *perched* above my chamber-door—
 Perched upon a bust of Pallas *just above* my chamber-door.—(Poe.)

Ex. 2. *Correct these sentences, and show why they are wrong:* I can read as good as you. This happened, *me* being present. He went on speaking to *who* would listen to him.

Ex. 3. *Give the root and meaning of these words:* Incredible, discredit, miscreant, indicate, predicate, index.

Latin Roots.—Learn and Write.

fido = I trust; fides = faith; fidēlis = faithful, trusty.	
<i>fidelity</i> , faithfulness; honesty	<i>confide</i> , to trust in
<i>diffidence</i> , want of trust	<i>perfidy</i> , unfaithfulness
<i>infidel</i> , one without faith	<i>fealty</i> , loyalty
<i>affiance</i> , trust	<i>bō'-nā fī'-dē</i> , in good faith
	filiū = a thread.
<i>file</i> , a line of soldiers	<i>defile</i> , a narrow pass
<i>filament</i> , a fibre	<i>profile</i> , the side face

Lesson 50.—Friday Morning. Work these Sums.

(1) In a school of 73 children, there are 25 boys; find the percentage of girls. If 33 of the children cannot write, what percentage can write?

(2) Find the average of $16\frac{3}{4}$; $24\frac{1}{2}$; 12; $95\frac{5}{8}$; 0; 52; $4\frac{1}{8}$; and 1'625, and express the fraction decimally.

* (3) Eight men do a piece of work in 6 days. In what time will 12 men do twice as much?

(4) If a post be 5 feet above water, $\frac{2}{3}$ of its whole length in the water, and $\frac{1}{3}$ in the mud, how long is it?

(5) At an election out of 3,000 voters $2\frac{1}{2}$ per cent are unable to write. How many were unable to fill up their voting papers?

COMPOSITION.—Taking *Newspapers* as your **theme**, show why and how newspapers are useful and valuable. How can the proper use of newspapers help a boy in his education? What is an improper use of a newspaper?

* Sums to which an asterisk is prefixed will be found worked out in the Author's Method of Unity, 3rd edition, price 1/6. John Heywood, Manchester and London. (See answer book.)

ELEVENTH WEEK.

Lesson 51.—Monday Morning. Learn.

PSALM CXIX., Verses 81—88 ; OR ELSE LEARN—

SONNET.¹ ON HIS BLINDNESS.²—(*Milton.*)

When I consider how my light is *spent*,³
*Ere*⁴ half my days,⁵ in this *dark*⁶ world and wide,
 And that one *talent*,⁷ which is death to hide,
 Lodg'd with me *useless*,⁸ though my soul more bent
 To serve therewith my Maker, and present
 My true account, lest He, returning chide :
 "Doth God exact day-labour, light denied ?"
 I *fondly*⁹ ask : but Patience, to prevent
 That murmur, soon replies, "God doth not need
 Either man's work or His own *gifts* ;¹⁰ who best
 Bears His mild *yoke*,¹¹ they serve Him best : His state
 Is *kingly* ;¹² thousands at His bidding *speed*,¹³
 And post o'er land and ocean without rest ;
 They also serve who only stand and *wait*."¹⁴

1. A short poem of fourteen lines, having two stanzas of four lines each followed by two of three each. It is of Italian origin. There are few good English sonnets. 2. Milton became blind about 1654, through unceasing study. 3. Gone. 4. Before. 5. Milton was now about 46 years old. 6. Sad ; full of sorrow. 7. Milton only claimed to have received one talent (Matt. xxv.). 8. His talent without sight to enable him to use it was useless. 9. Foolishly. 10. The gifts God has given a man to use for God's glory. 11. The slight troubles with which God afflicts His people. 12. His power is like that of a king. 13. Go quickly. 14. To wait His bidding.

Milton also refers to his blindness in "Paradise Lost," Book III., lines 40-55.

Draw maps (A) Scotland, mountains, rivers, and lakes ; (B) Europe, lakes, &c. ; (C) Southern Asia.

Lesson 52.—Tuesday Morn. Geography. Write and Learn.

SCOTLAND.

(A).—LAKES.—Scotland is a land of **Lakes** and **Mountains**. The lakes abound in the *middle* and *northern* parts of the country. They are generally long and narrow, formed in deep valleys, and are very beautiful. The best known lakes are **Loch Lo'-mond**, **Loch Ka'-trine**,* **Loch Awe** (*oh*), **Loch Le'-ven**, **Loch Loch'-y**, and **Loch Ness**.

Loch Lo'-mond, to the *west* of Ben Lomond, is about 24 miles long, and is the largest lake in Great Britain. It has many beautiful islands. Its waters flow into the Clyde.

Loch Ka'-trine lies to the *east* of Ben Lomond. It is about nine miles long and very deep. It flows into the *Forth*. Towards the *south-east* of it is a beautiful district called the **Tros'-sachs**. *Glasgow* is supplied with water from this lake.

* Properly pronounced *kā'-trīn*, but often called *kūt'-rīn*.

LESSON 52—Continued.

EUROPE.—LAKES.

(B).—The lake districts of Europe are chiefly in the north and among the Alps. In the north are—

La-do'-ga and **O-ne'-ga**, in *Russia*; **Wen'-er** (*vā'-n'r*), **Wet'-ter** (*vēt'-t'r*), and **Mæ'-lar** (*mā'-lār*), in *Sweden*; **Mi-o'-sen** (*mē-ō'-z'n*), in *Norway*.

The northern lakes are large, but their shores are generally bleak and dreary. **La-do'-ga**, the largest lake in Europe, is nearly as large as *Wales*.

In the centre and south are **Ba'-la-ton** (*bā'-lā-t'n*) and **Neu'-sied'-ler** (*noy-sēd'-l'r*) in *Austria*; **Con'-stance**, **Ge-ne'-va**, and **Neuf'-cha-tel'** (*nūsh-ā-tēl'*) in *Switzerland*; **Mag-gio'-re** (*mād-jō'-rā*), **Co'-mo**, and **Gar'-da** in *Italy*.

The Italian and Swiss lakes have beautiful scenery. They are generally very deep. The two Austrian lakes are salt.

Along the south-east shores of the Baltic, in *Prussia*, are many hundred small shallow lakes.

In the Steppes of *Russia* are a number of salt lakes. Salt lakes have generally no outlet; fresh-water lakes are seldom without outlet.

L. Win'-der-mere in *England*, **L. Lo'-mond** in *Scotland*, and **Lough Neagh** (*lōh nāy*) in *Ireland*, are the chief lakes in the British Islands.

SMALLER BRITISH POSSESSIONS IN ASIA.

(C).—**Cey-lon'**, capital **Co-lom'-bo** (112,000), on the west coast, is a fertile island to the south of **India**.

We get *coffee*, *sugar*, *rice*, and *cinnamon* from *Ceylon*. It has also a valuable **pearl fishery** on the west coast. **Galle** (*gāl*), on the south-west coast, is a station for steamers between Europe and the East.

Ceylon, though situated so near to *India*, does not form part of the Empire of *Hindustan*. It has a separate government.

(2) **A'-den**, on the south coast of **Arabia**, near the *Red Sea*, is strongly fortified, and is used as a *coaling* station.

About 90 miles from *Aden*, in the Straits of *Bab-el-Mandeb*, is the small island of **Pe-rim'** (*pā-reem'*), strongly fortified. It has an excellent lighthouse to guide ships through the Strait.

(3) **Hong-Kong**, an island at the mouth of the *Can-ton' River*, in **China**, is the headquarters of the British in *China*.

(4) The **Strait Settlements**, in the Strait of *Ma-lac'-ca*, consist of the province of **Ma-lac'-ca** and the island of **Sin-ga-pore'**, together with several smaller possessions. The town of *Singapore* (139,000) is a port, and warehouse for colonial produce.

The Strait Settlements are of the greatest importance for purposes of trade.

(5) **Cy'-prus**, a large and important island in the *Mediterranean*, was ceded to *England* by *Turkey* in 1878.

LESSON 52—Continued.

THE OCEAN.

(D).—**Why the Sea is Salt.** It is not yet quite certainly known what first caused the sea to be salt, but "there is no reason to doubt that the salts are, in the main, part of the original composition of the sea, and thus that the sea has always been salt."

Salt is one of the substances that make up the solid part of the globe. The water which falls as **rain** on the earth dissolves salt and other substances out of the ground, and carries them to the sea.

When the sun and wind dry up the surface of the sea, as they are always doing, **the vapour consists of pure water**, all the salt, and other solid substances, are left behind. This vapour forms clouds, the clouds drop as rain, which, passing through the ground, finally reaches the sea, carrying more mineral matter into the ocean.

There is therefore reason to believe that the waters of the ocean are gradually, but very slowly, getting saltier. This is especially the case in the **Mediterranean and Baltic Seas**.

The sea is not of an equal saltiness in every part. In **tropical regions**, and the region of the **trade winds**, the saltiness is the greatest, owing to the rapid evaporation. In **rainless seas**, such as the **Red Sea**, the saltiness is above the average. Seas which receive many large rivers, such as the **Baltic and Black Sea**, are less salt, and the presence of **icebergs** also decreases the saltiness.

Lesson 53.—Wednesday Morning. Work these Sums.

DISCOUNT (Ordinary, Trade, or Banker's*).

- (1) Find the trade discount on £315, due in 1 year at 5 per cent.
- (2) A bill of £500 is due 4 months hence at 3 per cent per annum. What is the banker's discount on it?
- (3) What is the banker's discount of £500, due 9 months hence, at 4 per cent per annum?
- (4) What annual income would enable a person to spend 4s. 6d. a day and save £2 6s. 10½d. per month?
- (5) A person is possessed of $\frac{1}{8}$ of a ship worth £16,000. He sells $\frac{3}{8}$ of his share; what has he remaining, and how much is it worth?

Greek Prefixes.—Learn and Write.

7. **auto** or **auth** [αὐτός] = *self*: as *autograph*, a signature written by one's self; *authentic*.
8. **cata** or **cat** [κατά] = *down* or *from*: as *cataract*, a waterfall; *catacombs*, *catastrophe*, *catechise*, *catholic*.
9. **dia** or **di** [διά] = *through*: as *diameter*, a line passing through; *dialogue*, *diagonal*, *diorama*, *diocese*.
10. **ec** or **ex** [ἐκ, ἐξ] = *out of*: as *eccentric*, out of the centre; *exodus*.
11. **epi** or **ep** [ἐπί] = *upon* or *during*: as *epitaph*, an inscription on a tombstone; *epidemic*, *epoch*, *ephemeral*.
12. **hemi** [ἡμι] = *half*: as *hemisphere*, half a sphere.

* These cases of discount are all calculated like simple interest. They need only be worked out to the nearest farthing.

Lesson 54.—Thursday Morn. Grammar. Write and Learn.

Ex. 1. *Analyse and Parse the words in italics.*

*How sleep the brave who sink to rest,
By all their country's wishes blest !
When Spring, with dewy fingers cold,
Returns to deck their hallowed mould,
She there shall dress a sweeter sod
Than Fancy's feet have ever trod.*—(W. Collins.)

Ex. 2. *Paraphrase the above (i.e., turn into prose).*

Ex. 3. *Give the meaning of these words, so as to show the force of the prefix:* Conjoin, circumference, co-equal, decline, countersign, depress.

Latin Roots.—Learn and Write.

ingo = I form ; fictus = formed ; figūra = a form.	
<i>fiction</i> , an invented story ; a lie	<i>figure</i> , a form, a shape
<i>effigy</i> , an image	<i>disfigure</i> , to spoil the form or shape
<i>feign</i> , to pretend	<i>transfigure</i> , to change the outward form
<i>configure</i> , to shape	frāter = a brother (Fr. form, <i>frère</i>).
<i>presfigure</i> , to exhibit beforehand	<i>fraternal</i> , belonging to a brother
	<i>friar</i> , a brother, or member of certain religious bodies
	<i>fraternize</i> , to join together like brothers
	<i>fratricide</i> , murder of a brother

Lesson 55.—Friday Morning. Work these Sums.

(1) Find the ordinary discount on £107 5s., due 6 months hence, at 5 per cent per annum.

(2) £1,336 11s. 3d. is due at the end of $3\frac{1}{2}$ years ; what is the banker's discount on it at 5 per cent ?

(3) What is the trade discount, at $2\frac{1}{2}$ per cent, on £630 2s. 6d. due in 3 months ?

(4) Express £1 10s. 8 $\frac{1}{4}$ d. in pounds sterling.

(5) If the carriage of 11 tons 15cwt. for 108 miles cost £7 7s. 11d. ; what would be charged for the carriage of 141cwt. a distance of 36 miles ?

COMPOSITION.—Continue your composition exercise on *Newspapers* (see last Friday's lesson). Give a history of newspapers. The first one issued in England was in 1622, and was called *The Weekly News*. Their gradual increase in size. Early news possible by means of the telegraph. Cheap price. Large number printed. Our chief English daily paper, *The Times*. Daily papers now published in all the large towns and a large number of weekly ones all over the country. Uses of advertisements.

TWELFTH WEEK.

Lesson 56.—Monday Morning. Learn.

PSALM CXIX., Verses 89—96 ; OR ELSE LEARN—

THE TRIAL SCENE

From Shakespeare's Merchant of Venice.

DRAMATIS PERSONÆ.

DUKE OF VEN'ICE.

ANTO'NIO, *the Merchant of Venice.*

BASSA'NIO, *his Friend.*

SALA'NIO, } *Friends to Antonio*
SALAR'NO, } *and Bassanio.*
GRATIA'NO, }

SHY'LOCK, *a Jew.*

POR'TIA, *a rich Heiress, wife of Bassanio.*

NERIS'SA, *her Waiting-maid, wife of Gratiano.*

Magnificoes of Venice, Officers of the Court of Justice; Attendants.

ACT IV. SCENE I.—Venice.¹ *A Court of Justice.*

Duke. What² is Antonio³ here ?

Ant. Ready, so please your grace.

Duke. I am sorry for thee : thou art come to answer⁴

A stony⁵ adversary,⁶ an inhuman wretch,⁷

Uncapable⁸ of pity, void and empty⁹ (5)

From any dram¹⁰ of mercy.¹¹

Ant. I have heard

Your grace¹² hath ta'en great pains to qualify¹³

His rigorous course ;¹⁴ but since he stands obdū'-rāte,¹⁵

And that no lawful means can carry me

Out of his envy's reach,¹⁶ I do oppose (10)

My patience¹⁷ to his fury ; and am arm'd

To suffer, with a quietness of spirit,

The very¹⁸ tyranny and rage of his.

1. A city on the north-west side of the G. of Venice. From the 9th till the 16th century it was the most important, and the most splendid commercial city in Europe. 2. What, an interjection simply calling attention. It does not ask the question. 3. Antonio was a young merchant of Venice who lent money to people in distress and did not take any interest for it. 4. To swear or speak in return ; to reply to. 5. Stony hearted ; hard hearted. 6. One who is opposed to another. 7. A miserable, bad man. 8. Incapable. 9. Both words mean the same thing. 10. The smallest quantity. 11. Kind feeling ; pity. 12. A title, or name, used in speaking to a duke. 13. To turn him from his cruel intention. 14. Cruel intention. 15. (Pro. ob-dū'-rāt. Now we pro. ob'-dū'-rāt) very cruel. 16. Out of the reach of his hatred or malice. 17. I patiently bear his wicked anger. 18. Real.

Draw maps (A) Scotland ; (B) Europe, countries ; (C) Africa, mountains, &c.

Lesson 57.—Tuesday Morn. Geography. Write and Learn.

SCOTLAND—LAKES.

(A).—All the important lakes, except Loch Le'-ven, are situated in the Highlands. The rivers in connection with the lakes often

GO TO NEXT PAGE,

LESSON 57—Continued.

form beautiful *waterfalls*. The most noted one is the **Falls of Fy'-ers**, 277 feet in height, on the east of *Loch Ness*. The **Falls of the Clyde**, near *Lan'-ark*, are also celebrated.

Loch Awe, in *Argyle*, is the next lake in size to *Loch Lomond*. It is long and narrow, and is emptied into **Loch Et'-ive** (ët'-ëv), an arm of **Loch Lin'-nhe**.

Loch Le'-ven, in *Kinross*, is a small oval lake, and is chiefly interesting for its castle, on an island, in which *Mary Queen of Scots* was kept prisoner, and from which she escaped in 1568.

Lochs Lochy and Ness are situated in *Glenmore*. They form part of the **Caledonian Canal**, which extends from *Moray Firth* and *Inverness* on the east, to *Loch Eil* (ēl) on the west, about 60 miles. It was begun in 1805 and opened in 1822, and was intended to obviate the passage of ships round the north coast; but it is shallow in parts, and is little used.

(B).—COUNTRIES OF EUROPE, WITH THEIR CAPITALS, &c.

Countries of Europe.	Capital and Chief Towns.	Rivers, &c., they stand on.
United Kingdom—		
GR. BRITAIN. {	LON'-DON	On the R. <i>Thames</i>
ENG'-LAND ... {	LIV'-ER-POOL	" R. <i>Mer'-sey</i> .
	MAN'-CHES-TER	" R. <i>Ir'-well</i> .
SCOT'-LAND .. {	ED'-IN-BURGH (ēd'-in-brō) ..	Near the F. of <i>Forth</i> .
	GLAS'-GOW	On the R. <i>Clyde</i> .
	DUN-DEE'	" R. <i>Tay</i> .
IRE'-LAND ... {	DUB'-LIN	" R. <i>Lif'-sey</i> .
	BEL'-FAST'	" <i>Belfast Lough</i> .
	CORK	" <i>Cork Harbour</i> .
Nor'-way and }	CHRIS-TI-A'-NI-A	" <i>Christiania Bay</i> .
Swe'-den {	STOCK'-HOLM	" L. <i>Mæ'-lar</i> .
Den'-mark	CO-PEN-HA'-GEN	" <i>Sound</i> .
Hol'-land	AM'-STER-DAM	" R. <i>Am'-stel</i> .
Bel'-gium	BRUS-SELS'	" R. <i>Senne</i> (sēn.)

(C).—**Africa** is a very compact continent, and is more than three times the size of *Europe*. The sea nearly surrounds it. It has the **Mediterranean** on the north, the **Atlantic** on the west, and the **Indian Ocean** and the **Red Sea** on the east.

It is joined to *Asia* by the **Isthmus of Suez**, about 72 miles long. The **Suez Canal** (85 miles) is longer than the **Isthmus**, as it does not run in a straight line.

The **Gulf of Guin'-ea** and **Table Bay** are the chief bays on the west, and the **Moz-am-bique' (-beek')** Channel and the **Gulf of A'-den** the principal parts of the sea on the east.

The principal capes are **Cape Verde**, and the **Cape of Good Hope** on the west.

MOUNTAINS AND PLAINS.—All the principal mountains appear to be round the coast, and the interior seems to consist chiefly of elevated

[TURN OVER,

LESSON 57—Continued.

tablelands. The principal mountains are the **At'-las Mts.** in the north, the **Kong Mts.** in *Upper Guinea*, and the **Mts. of Ab-ys-sin'-ia** in the *Nile* district. There are some high mountains near the centre of the continent, amongst the lakes, south of the Equator.

North of the Equator is the *Great Desert* or **Sa-ha'-ra (á)**, the largest desert in the world. It stretches from the *Atlantic* to *Egypt*, and is about *two-thirds* the size of Europe.

THE OCEAN—(Saltness continued).

(D).—The uses of the salt in the sea are—

- (1) *To prevent the water becoming corrupt or putrid.*
- (2) *To regulate evaporation*, as salt water evaporates more slowly than fresh water.
- (3) *To retard freezing.* Owing to the amount of mineral matters dissolved in sea water it freezes at a lower temperature than fresh water. Hence the open sea is never frozen over, except towards the poles.

Temperature of the Ocean. Large bodies of water keep a much more regular temperature than do large masses of land.

Water is a **bad conductor** of heat, it therefore *receives* heat less readily than land, and also *parts* with it more slowly than the land does.

In **Polar regions** the surface water is generally *colder* than the deep sea, and the heat *rises* with the depth, but in the open sea the surface temperature is *higher* than that of the deep water.

The lowest layers of water, even under the equator, are generally at about the freezing point. It appears there is an **underflow** of cold water from the **Polar Seas** to the **Tropics**, which compensates for an **overflow** of the warm tropical waters towards the **Poles**.

In **enclosed seas** the temperature generally remains the same after a certain depth, and does not decrease as lower depths are reached.

Lesson 58.—Wednesday Morning. Work these Sums.

(1) Find the banker's discount at 3 per cent on £937 14s. 7d. due 1 year hence.

(2) A bill for £1,150 10s. 6d. is payable in 10 weeks 3 days at $4\frac{1}{2}$ per cent; find the banker's discount on it.

(3) What is the trade discount on 50 guineas, due 14 months hence, at 6 per cent per annum?

(4) What principal will produce £48·125 interest in 1·25 years at 5 per cent, simple interest?

(5) If 2·2 per cent is deducted from £760, how much remains?

[GO TO NEXT PAGE.]

LESSON 58—Continued.

Greek Prefixes.—Learn and Write.

13. **hypo** [ὕπό]=*under*: as *hypothesis*, a placing under; *hypocrite*.
 14. **meta** or **met** [μετά]=*change or after*: as *metamorphosis*, a change of form; *metaphor*, *metonymy*.
 15. **para**, **par**, or **pari** [παρά]=*by the side of, equal*: as *parable*, a similitude; *paradox*, *paragraph*, *paraphrase*, *parody*, *parallel*.
 16. **peri** [περί]=*round*: as *period*, a going round (of time); *periphery*.
 17. **syn**, **sy**, **syl**, **sym**, or **sys** [σύν]=*together*: as *synthesis*, a placing together; *systole*, *syllable*, *sympathy*, *system*.

Lesson 59.—Thursday Morn. Grammar. Write and Learn.

Ex. 1. *Analyse and Parse the words in italics.*

*By fairy hands their knell is rung ;
 By forms unseen their dirge is sung ;
 There Honour comes, a pilgrim grey,
 To bless the turf that wraps their clay ;
 And Freedom shall awhile repair,
 To dwell a weeping hermit there.*—(W. Collins.)

Ex. 2. *Paraphrase the above (i.e., turn into prose).*

Ex. 3. *Break up the following words into prefix, stem, and affix, and give the meaning as shown by the component parts* (NOTE.—The stem is that part of the word which is formed from, or contains the root, and to which the prefix and affix is attached): *Contradict*, *interdiction*, *predict*, *adjourn*, *sojourn*, *disciplinarian*.

Affixes.—Learn and Write.

I.—AFFIXES FORMING NOUNS.

1. *Denoting the agent or doer of a thing.*

*ar, as li-ar, begg-ar.	*ster, as game-ster, spin-ster.
*ard } as drunk-ard, slugg-ard,	†an or } as public-an, pag-an.
or } bragg-art.	†ane, } as hum-ane.
*art, }	†ain, as capt-ain, chapl-ain.
*er, as writ-er, do-er.	†en, as heath-en.

* = English ending.

† = Latin ending.

Lesson 60.—Friday Morning. Work these Sums.

(1) What trade discount would be given on £14,924 11s. 8d., due in 25 days' time, at 2 per cent?

(2) £370 is due 14 weeks 2 days hence; if this sum was put out at simple interest at $4\frac{1}{2}$ per cent per annum, find the discount on it.

(3) A bill of £560 12s. 0d. is due in 9 months at $3\frac{1}{2}$ per cent per annum; what banker's discount would be given?

(4) I pay £81 8s. 3d. in settlement of a bill for goods value £83 10s.; what is the percentage of discount allowed me?

(5) Find the compound interest on £480 for 3 years at $2\frac{1}{2}$ per cent per annum.

COMPOSITION.—Describe a voyage from Newcastle-on-Tyne round England to Liverpool, noting particularly anything of interest you would be likely to see, or write a letter on the weather.

THIRTEENTH WEEK.

Lesson 61.—Monday Morning. Learn.

PSALM CXIX., Verses 97—104; OR ELSE LEARN—

THE TRIAL SCENE—(Continued).

Duke. Go one, and call the Jew into the court.
Salan. He's ready at the door; he comes, my lord. (15)

Enter SHYLOCK.

Duke. Make room, and let him stand before our face.
 Shylock, the *world*¹ thinks, and I think so too,
 That thou but *lead'st this fashion*² of thy *malice*³
 To the last *hour of act*⁴; and then, 'tis thought,
 Thou'lt show thy mercy, and *remorse*⁵, more strange (20)
 Than is thy strange *apparent*⁶ cruelty.
 We all expect a gentle answer, Jew.

1. The people of Venice, and every one who knew about the affair. 2. Keapest this show of malice. 3. Badness of disposition; desire to do harm to others. 4. As long as possible; acting, pretence. 5. Pity. 6. Seeming.

Draw maps (A) Scotland, towns; (B) France; (C) Egypt.

Lesson 62.—Tuesday Morn. Geography. Write and Learn.

SCOTLAND.

(A).—DIVISION.—Scotland is divided into 32 counties. It is scarcely necessary to learn their names; but it may be remembered that the **largest** are Ar-gyle', Ross, In-ver-neas', Suth'-er-land, Ab-er-deen', Perth, Lan'-ark, Ayr, and Dum-fries'. The **most populous** are Ed'-in-burgh, Ab-er-deen', For'-far, Ren'-frew, Ayr, Fife, Perth, and Stir'-ling. The population is nearly 3,750,000, or about that of London.

INDUSTRIAL PURSUITS.—**Agriculture, manufactures, and commerce.**

(1) **Agriculture.**—Only about one-third of Scotland is cultivated, owing to the mountains, and of this a large part is **pasture land**. There are few forests, and the chief tree grown is the **fir**. The chief grain cultivated is **oats**. The farming is good, the Scotch being amongst the best farmers in the world.

The most fertile tracts are *Strathmore*, the *Plain of Crom'-arty*, and the *Lothians* (which is the district south of the river Forth); the *Carse of Gowrie*, between the Firth of Tay and the Sidlaw Hills and *Teviot-dale*. Numbers of sheep and cattle are fed on the moors and high-lands. The climate is generally colder and bleaker than in England.

LESSON 62—Continued.

(B).—COUNTRIES OF EUROPE, WITH THEIR CAPITALS, &c.

Countries of Europe.	Capital and Chief Towns.	Rivers, &c., they stand on.
German Empire—		
PRUS'-SIA {	BER-LIN'	On the R. Spree.
	HAM'-BURG	" R. Elbe.
S. GER'-MANY	MU'-NICH (mū'-nĭk)	" R. I'-sar (ē'-z'r).
Aus'-tro-Hun-ga'-ri-an Empire ..	VI-EN'-NA (vē'-ĕn'-nā)	" R. Dan'-ube.
	TRI-ESTE' (trē'-ĕst')	" G. of Venice.
Switz'-er-land ..	BERNE (bŭrn)	" R. Aar.
	GE-NE'-VA	" L. Geneva.
France	PAR'-IS	" R. Seine (sān).
	MAR-SEILLE' (mār'-sāl') ..	" G. of Lyons.
Por'-tu-gal	LIS'-BON	" R. Ta'-gus.
Spain	MA-DRID'	" R. Man'-za-na'-res
It'-aly	ROME	" R. Tĭ'-ber.
	FLOR'-ENCE	" R. Ar'-no.
Greece	ATH'-ENS	" G. of Æ-gi'-na
Tur'-key	CON-STAN-TIN-O'-PLE	" Bos'-po-rus.
Bul-ga'-ri-a	SO-PHI'-A (sō'-fē'-ā)	" R. I'-kar.
Rou-ma'-nia	BU'-CHAR-EST	" R. Dum-bo-vi'-za
Ser'-vi-a	BEL-GRADE'	" R. Dan'-ube.
Mon'-te-ne'-gro ..	CET-IGNE' (ĕt'-teen')*	In the Interior.
Rus'-si-a	ST. PE'-TERS-BURG	On the R. Né'-va.

* Or Cet-tin'-je (ĕt'-tĕn'-yā).

SEAS, &c., OF AFRICA.

(C).—(1) THE MEDITERRANEAN separates *Africa* from *Europe* on the north, and receives the R. Nile, 4,000 miles long.

This river is the largest in the Old World, and rises somewhere south of the equator. It overflows its banks every year.

(2) THE ATLANTIC RECEIVES the River Gam'-bi-a south of C. Verde, the R. Ni'-ger (nĭ'-jĕr) flowing into the Gulf of Guinea, and the R. Con'-go and the Orange R. further south.

The Congo is sometimes called the Za-ire' (zā'-eer'). Its lower course is called the Livingstone.

The Ca-na'-ry Islands, north of C. Verde, belong to Spain, the Cape Verde Islands, opposite C. Verde, belong to Portugal, and the islands of As-sen'-sion and St. Hel-e'-na belong to England; all are in the Atlantic.

(3) THE MO-ZAM-BIQUE' CHANNEL receives the Zam-be'-si, in which are the celebrated Victoria Falls.

The large island of Mad-a-gas'-car is separated from the mainland by this channel. It is about twice the size of the British Islands.

THE OCEAN—(Temperature continued).

(D).—The temperature of the sea undergoes little change during the year, as compared with the land. This is a most important fact, and has a great influence upon the climate of sea-washed countries.

Between the hottest part of the day and the coldest part of the

[TURN OVR

LESSON 62—Continued.

night the greatest difference in the temperature of the surface of the sea does not exceed four degrees.

In the **Tropics** the average temperature of the **Atlantic** is about 82°, and nearly the same for the **Pacific**. In the **North Atlantic** it falls to 54°. In the **North Pacific** it is about 70°, and in the **South Pacific** 67°. The general bottom temperature is from 32° to 35°.

Colour of the Sea. The colour of the sea *varies* very much. **Shallow** water is a **pale sea-green**, deeper water a **deep blue**, and very deep water a **deep indigo**.

The colour near the shore is also affected by the **weather**, and the **nature** of the **rocks** and **soil** of the shore.

The blue colour of the ocean is only seen when the water is in *large masses*. A glassful of sea water appears just like the same quantity of drinking water.

The **Mediterranean Sea** is noted for the *blueness* of its waters. The **Red Sea** gets its name from the *reddish tinge* given to the water near the shore, and among the coral-reefs, by immense numbers of minute creatures found in it. The **Yellow Sea** is so called because of the *yellow mud* which is brought into it by rivers, or which is washed up from the bottom.

Lesson 63.—Wednesday Morning. Work these Sums.

(1) Find the banker's discount on £6,654 7s. 6d., due 1½ year hence, at 4½ per cent.

(2) What trade discount would be paid on £1,691 12s. 8d., due in 16 months, at 4½ per cent?

(3) What is the ordinary discount on £1,415, due in 5 months, at 7 per cent?

(4) If a pair of boots be sold for 11s. 6d. at a gain of 15 per cent, how much will be gained or lost if they are sold for 9s. 6d.?

(5) Find the value of £7·875 + ·875 of a guinea + ⅓ of 4½d. + 3·35 of a crown.

Latin Roots.—Learn and Write.

ago = I do; **agens, agentis** = doing; **actus** = done.

agent, one who acts or does something for another.

active, doing quickly.

actor, one who acts.

agile, nimble in doing.

actual, real.

act, to do; something done.

enact, to order a thing to be done.

action, state of doing; a deed.

Lesson 64.—Thursday Morn. Grammar. Write and Learn.

Ex. 1. *Analyse and Parse the words in italics.*

Bad company *is like* a nail driven into a post, *which*, after the first and second blow, *may be drawn out* with little difficulty; *but being* once driven up to the head, the pincers can not *take hold to draw it out*, but which can *only* be done by the *destruction* of the wood.—(Augustine.)

[GO TO NEXT PAGE.]

LESSON 64—Continued.

Ex. 2. *Correct these sentences, and show why they are wrong:* He gave it *me* yesterday. The quality of the apples *were* good. Glory and honour *is* dead. I am as busy as when you *was* last here.

Ex. 3. *Give the meaning of these words so as to show the force of the prefix:* Dismount, eject, export, divide, incomplete, incorrect, oppress, confirm.

Affixes.—Learn and Write.

I.—AFFIXES FORMING NOUNS.

1. *Denoting the agent or doer (continued).*

ton, as surge-on.	†or, as auth-or, inspect-or.
tant, as occup-ant, ten-ant.	‡ee, as trust-ee, legat-ee.
tate, as advoc-ate, deleg-ate.	‡eer, as mutin-eer, auction-eer.
tary, as mission-ary, libr-ary.	§ic, as mechan-ic, crit-ic.
tent, as ag-ent.	§ist, as botan-ist, bapt-ist.
†=Latin ending. ‡=French ending. §=Greek ending.	

Lesson 65.—Friday Morning. Work these Sums.

(1) What would be paid as banker's discount on £246 16s. from March 26th to June 23rd, both days included, at $3\frac{3}{4}$ per cent?

(2) What is the trade discount on £5,556, due $4\frac{1}{2}$ years hence, at $3\frac{1}{2}$ per cent?

(3) For a certain sum of money payable at the end of the year five chairs can be bought; and six chairs of the same sort can be bought for the same sum in ready money. What is the rate of discount?

(4) Convert $7\frac{3}{8}$ into a vulgar fraction with denominator 56, and turn this vulgar fraction into a decimal.

(5) If $\frac{1}{8}$ of a small house be worth £36 10s. $7\frac{1}{2}$ d., what share will cost £125 5s.?

COMPOSITION.—Write a **letter** to your teacher asking him for a *character*. You are going to a situation if your testimonials are satisfactory; describe the situation and the duties required of you.

FOURTEENTH WEEK.**Lesson 66.—Monday Morning. Learn.**

PSALM CXIX., *Verses 105—112*; OR ELSE LEARN—

THE TRIAL SCENE—(Continued).

Sky. I have *possessed*¹ your grace of what I purpose;
 And by our holy Sabbath have I sworn,
 To have the *due*² and forfeit of my bond: (25)
 If you *deny it*,³ let the danger light
 Upon your *charter*⁴ and your city's freedom.

[TURN OVER.

LESSON 66—Continued.

You'll ask me, why I rather choose to have
 A weight of *carrión flesh*,⁵ than to receive
 Three thousand *ducats*.⁶ I'll not answer that : (30)
 But, say, it is my *humour*.⁷ Is it answered?

Bass. This is no answer, thou unfeeling man,
 To excuse the *current*⁸ of thy cruelty.

Shy. I am not bound to please thee with my answers.

1. Informed. 2. That which is owed, viz., the pound of flesh. 3. Refuse to order me this. 4. The laws. 5. Bad, worthless, or dead flesh. 6. A coin worth about 4s. 6d. in silver, and 9s. in gold; but it had various values. 7. Fancy (pro. *you'-mër*). "Humour" [L. *hūmōr*, fluid, moisture] refers to a person's disposition. It was formerly believed there were four principal moistures, or "humours," in the body. If one of these was more in quantity than the other, some kind of bad temper was the result; but a proper mixture of them caused "good humour." 8. The course. To excuse the cruel way you are acting.

Draw maps (A) Scotland, towns; (B) France, physical; (C) Africa.

Lesson 67.—Tuesday Morn. Geography. Write and Learn.

SCOTLAND.

(A).—(2) **Manufactures**—The most important manufactures are those of cotton, woollen, linen, iron, and silk.

(a) **COTTON and SILK**; chiefly made at **Glas'-gow** and **Pais'-ley**, on the mouth of the *Clyde*.

(b) **WOOLLENS**; in the valley of the *Tweed*, at **Haw'-ick** (*hō'-ik*) and **Gal-a-shiels'**, and also at **Stir'-ling** and **Pais'-ley**.

(c) **LINEN**; at **Dun'-dee**, **Mon'-trose**, **Ar'-broath** (*ār'-brōth*).

The cotton manufacture is carried on chiefly in the *west*, the linen in the *east*, and the woollen in the *south-east*.

(d) **THE IRON MANUFACTURE** has its chief seat towards the lower course of the *Clyde* at **Glas'-gow**, at **Air'-drie** (*ār'-drē*), in **Lanark**, and also at **Car'-ron**, in **Stirling**.

The mineral wealth of Scotland is included between the mouths of the *Clyde* and *Tay*, and **St. Abb's Head**, and the town of **Ayr**.

Coal and iron are abundant within this district.

(f) **SHIPBUILDING** is an important branch of trade on the mouth of the *Clyde*, especially at **Glas'-gow**.

EUROPE.—FRANCE.—PHYSICAL.

(B).—**BOUNDARIES**.—*North* by the **English Channel**, the **Straits of Dover**, and **Belgium**; *west* by the **Bay of Biscay**; *south* by the **Pyrenees** and the **Mediterranean**; *east* by **Italy**, **Switzerland**, and **Germany**. The **Alps**, the **Jura Mts.**, and the **Vosges** (*vōzh*) **Mts.** form the boundary. The area is nearly four times that of England, or about 204,000 square miles.

SURFACE—The surface is flat or undulating. In the centre are the **Au'-vergne** (*ō'-vŭrn*) **Mts.**, and in the *south-east* the **Ce-vennes'** (*sā'-vĕn'*). [GO TO NEXT PAGE]

LESSON 67—Continued.

RIVERS.—France is well watered. The **Seine** (*sān*) rises in the Cevennes, and flows into the English Channel. The **Loire** (*luōr*), 600 miles long, rises in the Cevennes, and the **Garonne** (*gā-rōn'*) rises in the Pyrenees; both rivers flow into the Bay of Biscay. The **Rhône**, rising in the Alps, flows through the **L. of Geneva** into the G. of Lyons.

CLIMATE AND PRODUCTIONS.—The **climate** is similar to that of England in the *north*, but much warmer further *south*. The **soil** is fertile. There are extensive forests in the *east*. The minerals are not important, excepting coal and iron in the *north-east*. **Agriculture** is backward—*maize*, the *vine* and the *olive*, *tobacco*, *beet-root*, and *madder* are cultivated.

AFRICA.—PHYSICAL FEATURES.

(C.)—**LAKES.**—The lakes of Africa are one of its important physical features. **Lake Tchad** (*tshād*), to the *south* of Sahara, is a shallow fresh water lake, having no outlet. **Lakes Albert Nyan'za** (*n'yân'-zā*) and **Victoria Nyanza**, situated on the equator, are connected with the *Nile*. **L. Tan-gan-yi'-ka** (*i = ē*) lies *south* of the equator. **L. Nyas'sa** (*n'yā'-sā*) empties itself by the *R. Shi're* (*shē'-rā*) into the *Zambesi*.

CLIMATE, SOIL, AND PRODUCTIONS.—As the greater part of Africa lies within the *tropics*, the climate is *hot*, but the *north* and *south* are temperate. The west coast is very unhealthy. A great part of the land is barren, but the river banks and valleys are very fertile.

Gold is found in the *west* and *south*, **diamonds** in the *south*, and **iron** and **copper** in the *north*.

The **date palm** grows abundantly, and wild **coffee** is found in *Abyssinia*. Much **cotton** is cultivated in *Egypt*, and large quantities are exported.

The inhabitants are mostly of the Negro race, and probably number 210 millions.

THE OCEAN.

(D.)—**Movements of the Ocean.** The waters of the sea are **never still**, they are constantly moving about, and these movements are of three kinds—

- (1) **Waves**—produced by the *wind*.
- (2) **Tides**—produced by the *attraction of the sun and moon*.
- (3) **Currents**—produced by *differences in temperature and density*.

Waves. These are **movements of the surface** of the ocean, produced generally by winds.

At first they are a mere **ripple** upon the surface, as when you

[TURN OVER.

LESSON 67—Continued.

blow gently upon the water in a saucer, but these ripples, in the open sea, and under a **high** wind, are lashed into **great waves**.

The **largest waves** are generally about 40 feet from *crest* to *trough*, but the average height of Atlantic waves is not more than 24 feet. Large waves advance at from 30 to 40 miles an hour.

In a wave it is **not the water** that advances but the **form** only. The water forming the waves simply **rises up and down**, remaining all the time nearly in the same place.

When a wave comes near the shore, where the water is shallow, and the bottom interferes with the rising and falling of the water, the trough, or **foot of the wave**, is held back, and the top or **crest** *curves forward* and breaks with great force, forming what are called **breakers**.

Lesson 68.—Wednesday Morning. Work these Sums.

(1) A tradesman announces "25 per cent for ready money;" what will be paid for goods nominally worth £17 10s. 6d. on these terms?

(2) What is the ordinary discount, at $4\frac{1}{2}$ per cent, on £55, due 146 days hence?

(3) What vulgar fraction is equivalent to the sum of $14\frac{1}{4}$ and $1\frac{1}{4}$ divided by their difference?

(4) In how many years will £125 become £175 at $4\frac{1}{2}$ per cent per annum?

(5) A provision dealer bought 3 casks of butter for £9, containing respectively 48lb., 52lb., and 60lb. How must he sell it per pound so as to gain 20% on his outlay?

Latin Roots.—Learn and Write.

anima = life.

animal, a living creature.

inanimate, without life.

animate, to give life to; to

reanimate, to animate again.

encourage.

animalcule, a small animal.

amo = I love; **amans**, **amantis** = loving; **amatus** = loved.

amity, friendship.

amateur, a lover of an art or

amiable, worthy to be loved.

science; a beginner.

enmity, without love; hatred.

Lesson 69.—Thursday Morn. Grammar. Write and Learn.

Ex. 1. *Analyse and Parse the words in italics.*

The *numerous* cooks *who* attended on the *prince's* progress, *having* *exerted* all their art in *varying* the forms in which the ordinary provisions *were* *served up*, had succeeded in rendering them *perfectly* *unlike* their natural appearance.—(Scott.)

[GO TO NEXT PAGE.]

LESSON 69—Continued.

Ex. 2. *Break up these words into their component parts (prefix, stem, and affix), and give the meaning:* Transaction, actual, counteract, agility, unequal, triangle.

Ex. 3. *Form these words into verbs:* Advice, person, numerous, glad, joy, sweet.

Affixes.—Learn and Write.

AFFIXES FORMING NOUNS (Continued).

(2) *Denoting state of being, or quality, or order.*

***dom**, as king-dom, free-dom, martyr-dom.

***hood**, as man-hood, child-hood, boy-hood.

***red**, as kind-red, hat-red.

***ship** } as friend-ship, wor-
or ship, court-ship.

***scape**, as land-scape.

*=English ending.

***ness**, as dear-ness, good-ness, dark-ness.

***th**, as wid-th, streng-th, four-th.

†**acy**, as conspir-acy, accur-acy.

†**ance** } as abund-ance, frag-
or ance.

†**ancy**, as const-ancy, inf-ancy.

†**ce** or **ice**, gra-ce, just-ice.

†=Latin ending.

Lesson 70.—Friday Morning. Work these Sums.

(1) What will a banker pay for £2,076 10s., due in 1 month, at 5 per cent?

(2) What shall I pay for goods charged in the account as worth £50 15s. 6d., if I pay ready money and receive discount of 2d. in the shilling?

(3) A bill of £649 is dated on June 23rd, 1883, at 6 months, and is discounted on July 8th at $3\frac{1}{4}$ per cent; what does the banker charge for discounting? (Work to the nearest farthing.)

(4) What is the expense of carpeting a room $26\frac{1}{2}$ ft. long and 18 ft. broad, with carpet $\frac{3}{4}$ yard wide at 3s. 4d. per yard?

(5) If 5.25 yards of calico cost 3s. 8.625d., what will be the cost of 367.5 yards?

COMPOSITION.—Write a letter to your uncle in New York describing anything remarkable that has lately occurred in your own town, or in England, or in Europe, and which will be likely to interest him.

FIFTEENTH WEEK.

Lesson 71.—Monday Morning. Learn.

PSALM CXIX., Verses 113—120; OR ELSE LEARN—

THE TRIAL SCENE—(Continued).

Ant. I pray you, think you *question*¹ with the Jew: (35)
You may as well go stand upon the beach,
And bid the *main flood*² *bate*³ his usual height;
You may as well *use question*⁴ with the wolf

[TURN OVER.

LESSON 71—Continued.

Why he hath made the *ewe*⁵ bleat for the lamb ;
 You may as well forbid the mountain pines (40)
 To wag their high tops, and to *make no noise*⁶
 When they are *fretten*⁷ with the *gusts*⁸ of heaven :
 You may as well do any thing most hard,
 As seek to soften that—than which what's harder ?—
 His Jewish heart :—Therefore, I do *beseech*⁹ you, (45)
 Make no more offers, use no further means,
 But, with all brief and plain *conveniency*,¹⁰
 Let me have judgment, and the Jew his will.

1. Argue; plead. 2. The mighty ocean. 3. To lower, to lessen.
 4. Argue with; ask questions of. 5. A female sheep. 6. And (order them) to make no noise. 7. Agitated; blown about. 8. Winds. 9. Beg; ask earnestly. 10. In as quick and short a manner as the law will allow, let the judge sentence me, and satisfy the Jew.

Draw maps (A) Scotland ; (B) France ; (C) Africa, countries.

Lesson 72.—Tuesday Morn. Geography. Write and Learn.

SCOTLAND.

(A).—(3) COMMERCE.—The commerce is considerable, and is rapidly increasing; the principal *imports* being raw material for consumption or manufacture, and the *exports* manufactured goods.

Agricultural produce, including numbers of sheep and cattle, is sent in large quantities to England.

The **chief ports**, in order of importance, are **Glas'gow**, on the *Clyde*; **Leith** (*leeth*), the port of Edinburgh, on the *Forth*; **Green'ock**, on the *Clyde*; **Ab'er-deen'**, on the *Dee*; and **Dun-dee'**, on the *Tay*.

The greatest trade of Scotland is with England and Ireland.

After Liverpool, London, and Bristol, **Glasgow** is the most important port in the British Islands. Its *foreign trade* is very extensive.

Peterhead', in *Aberdeen*, is the great seat of the cod fishery, and, with **Dundee**, of the whale fishery in the Northern seas.

EUROPE.—FRANCE.—POLITICAL.

(B).—MANUFACTURES.—France ranks next to England as a manufacturing and commercial country.

The important manufactures are **wine** and **brandy**, **silk**, **cotton**, **woollen**, and **linen**, **hardware**, and **jewellery**.

Champagne (*shām-pān'*) and **Burgundy** wines are grown in the eastern districts about the sources of the Rivers Meuse, Seine, and Saône (*sōn*); and **Claret** near **Bor-deaux'** (*bōr-dō'*). The town of **Cog-naç'** (*kōn-yāk'*), on the *R. Charente*, is famous for brandy.

Lyons, on the *R. Rhône*, and **Paris** are noted for **silk** manufacture. Cotton, woollen, and linen are made in the *north-east*, at **Lille** (*lël*) and **Rouen** (*roo-ōn'*).

[GO TO NEXT PAGE.]

LESSON 72—Continued.

The **POPULATION** is about thirty-eight millions, and the **GOVERNMENT** is, at present, a **Republic** under a president. The religion is **Roman Catholic**, but all forms are tolerated.

The most important foreign possessions of France are **Al-ge'-ria**, in the *north of Africa*, the chief town of which is **Al-giers'**; and **Bour'-bon** or **Re'-union**, an island to the *east* of Madagascar. France has also small possessions in **Hindustan**, **Cochin China**, the **West Indies**, **South America**, and **Oceania**.

(C).—COUNTRIES OF AFRICA.

Chief Countries of Africa.	Capital and Chief Towns.	Rivers, &c., they stand on.
EGYPTIAN DOMINIONS—		
E'-gypt	CAT'-RO (<i>k'ī-rō</i>)	On the <i>R. Nile</i> .
{	AL-EX-AN'-DRI-A	" <i>Mediterranean</i> .
	SU'-EZ	" <i>Red Sea</i> .
Nu'-bia	BER'-BER	" <i>R. Nile</i> .
Sou'-dan (<i>soo'-dān</i>)	KHAR'-TUM	" "
Ab-ys-sin'-i'-a	GON'-DAR	Near <i>L. Dem'-be-a</i> .
BARBARY STATES—		
Trip'-o-li (<i>trīp'-ō-lī</i>) ..	TRIP'-O-LI	On the <i>Mediterranean</i> .
Tu'-nis	TU'-NIS	" "
Al-ge'-ria	AL-GIERS'	" "
Ma-roc'-co	MA-ROC'-CO	" <i>R. Tin'-sift</i> .
SOUTH AFRICA—		
Cape Colony	CAPE TOWN	" <i>Table Bay</i> .
Na-tal'	PIE'-TER-MAR'-ITZ-BURG ..	" <i>East Coast</i> .
Trans'-vaal	PRE-TO'-RE-A	In the <i>Interior</i> .

THE OCEAN—(Waves continued).

(D).—**Effect of Waves.** Waves do not disturb the water of the open sea to any great depth, they are chiefly produced on the **surface**. In the most violent storm the water is not disturbed for a depth of more than about 500 feet.

One great effect of waves is to **wear away** the land against which they break. The rugged appearance of a rocky coast, such as **Norway** or the *west* coast of **Ireland** and **Scotland**, is produced by the waves which wash away the *softer parts* of the land, eating it into caves, bays, inlets, &c., and leaving the *harder parts* standing, as capes, headlands, promontories, &c.

Sand and pebbles are produced by the ceaseless action of the waves rolling and rubbing the stones together.

The wearing away of the land by the action of the sea is called **marine denuda'tion**. It is especially noticeable on the *east* coast of **England**. Between **Flamborough Head** and **Spurn Head**, and between the **Wash** and the **Thames**, the land is being washed away at the rate of a yard every year. The land washed away is sometimes carried out to sea, and sometimes **deposited** on another part of the coast. Thus **Spurn Head** is gradually **growing**, soil washed from the coast higher up being deposited here.

Lesson 73.—Wednesday Morning. Work these Sums.**PRESENT WORTH.**

(1) Find the present worth of £211 16s. 10d., due 2 years hence, at 5 per cent.

(2) What is the present value of £10,673 at $4\frac{1}{2}$ per cent, due 7 months hence?

(3) £374 6s. 0 $\frac{1}{2}$ d. is due in $3\frac{1}{2}$ years at $4\frac{1}{2}$ per cent per annum simple interest. What is its present worth?

(4) Divide £345 10s. among 3 persons so that their shares shall be as the numbers 5, 6, and 7.

(5) A tailor sold a pair of trousers for 17s. 6d., thus gaining 16 $\frac{2}{3}$ per cent. How much money did he gain by selling 5 dozen pairs?

Latin Roots.—Learn and Write.

cādo = I fall; cadens, cadentis = falling; cāsus = fallen.	
cadence , a falling of the voice.	coincide , to fall together; to agree.
care , that which falls (or happens); an event.	decay , to fall off; to wither.
chance , to fall out; to happen.	incident , falling upon; an event.
accident , that which falls to; something unforeseen.	occasion , that which falls in the way; an opportunity.

Lesson 74.—Thursday Morn. Grammar. Write and Learn.

Ex. 1. Analyse and Parse the words in italics.

The *Being that is* in the clouds and air,
That is in the green leaves *among* the groves,
Maintains a deep and *reverential care*
For the unoffending creatures *whom* He loves.— (Wordsworth.)

Ex. 2. Paraphrase the above (i.e., turn into prose).

Ex. 3. Break up these words into their component parts (prefix, root, affix), and give the meaning: Contradict, interdict, dictation, benediction, transact, inimical, quadrangle, reanimate.

Affixes.—Learn and Write.**I. AFFIXES FORMING NOUNS (Continued).**

(2) *Denoting the state of being, or quality, or order (continued).*

tence , as penit-ence, excell-ence.	tude , as grati-tude, multi-tude.
or tency , as leni-ency, dec-ency.	ture , as verd-ure, pleas-ure,
tment , as nourish-ment, orna-ment.	rapt-ure.
tion , as na-tion, modera-tion,	ty , as victor-y, flatter-y.
or tion , as tens-ion, miss-ion.	age , as parent-age, foli-age.
ity or ty , as hones-ty, royal-ty, qual-ity.	our or uor , as hon-our, lang-uor.
	sism , as bapt-ism, patriot-ism,
	ster , as charac-ter.

†=Latin ending. ‡=French ending. §=Greek ending.

Lesson 75.—Friday Morning. Work these Sums.

(1) A bill of £479 10s. is due 11 months hence at 3 per cent. Find its present value.

(2) Find the present worth of £808 1s. 4d., due 3 years and 9 months hence, at 4 per cent.

(3) What is the present worth of £1,000, due in 285 days, at 5 per cent?

(4) A mill worth £10,000 is burnt down. It was only insured to the extent of $85\frac{1}{2}$ per cent of its value. What was the loss to the owner?

(5) If $3\frac{3}{8}$ lb. of cinnamon cost 17s. $9\frac{3}{4}$ d., what must be paid for $17\frac{3}{8}$ lb.?

COMPOSITION.—Write an account of any *Book* or *Poem* you have lately read, and which has greatly interested you. Say why you like it, and what lessons you have learnt from it.

SIXTEENTH WEEK.**Lesson 76.—Monday Morning. Learn.**

PSALM CXIX., Verses 121—128; OR ELSE LEARN—

THE TRIAL SCENE—(Continued).

- Bass.* For thy three thousand ducats here is six.
Shy. If every ducat in six thousand ducats (50)
 Were in six parts, and every part a ducat,
 I would not draw them; I would have my bond.¹
Duke. How shalt thou hope for mercy, rendering none?²
Shy. What judgment³ shall I dread, doing no wrong?
 The pound of flesh, which I demand of him, (55)
 Is dearly bought;⁴ 'tis mine, and I will have it.
 If you deny me,⁵ fie⁶ upon your law!
 There is no force in the decrees⁷ of Venice.
 I stand⁸ for judgment: answer; shall I have it?
Duke. Upon my power,⁹ I may dismiss this court, (60)
 Unless Bel-la'-rio,¹⁰ a learned doctor,¹¹
 Whom I have sent for to determine¹² this,¹³
 Come here to-day.

1. If you offer me six times six thousand ducats, I would not take them.
 2. Giving nothing in return. 3. Sentence; verdict. 4. If Shylock got his pound of flesh, he would not also get his three thousand ducats; hence he might well say, it "is dearly bought." 5. Refuse to order me to take it.
 6. An interjection expressing disgust. 7. Laws. 8. I stand here, or am waiting here, for judgment; I insist upon having judgment. 9. Authority.
 10. (Pro. *bél-tá-ré-ô*.) It appears that the Duke had sent for Bellario, to assist him in deciding this matter. 11. A learned man, here, a Doctor of Laws.
 12. To decide, to try. 13. This suit; the judgment to be given.

Draw maps (A) Ireland, outline; (B) Holland; (C) West Coast Africa.

Lesson 77.—Tuesday Morn. Geography. Write and Learn.**SCOTLAND—CHIEF TOWNS.**

(A).—IN THE BASIN OF THE *Tweed*.—**Ber'-wick**, on the *Tweed*, is an English town. **Kel'-so** and **Mel'-rose** have the ruins of beautiful abbeys. Near Melrose is **Ab'-bots-ford**, where Sir Walter Scott lived. **Pee'-bles** (*pē-b'z*) has manufactures of woollens, and **Haw'-ick** of hosiery.

IN THE BASIN OF THE *Forth*.—**Ed'-in-burgh** (228,000), the capital of Scotland, and one of the finest cities in Europe. The castle stands on a high rock near the centre of the city. **Leith**, two miles distant, is its port. **Stir'-ling**, on the *Forth*, was formerly the residence of the Scottish kings. Near it is **Ban'-nock-burn**, where *Robert Bruce* defeated Edward II. of England, 1314.

IN THE BASIN OF THE *Tay*.—**Dun-dee'**, on the *Firth of Tay*, the third largest town in Scotland. It is an important seaport, and the great seat of the linen manufacture. **Perth**, on the *Tay*, was once the capital of Scotland. **St. Andrews** is the seat of a famous university.

EUROPE—FRANCE—POLITICAL.

(B).—CHIEF TOWNS.—**Paris**, the capital (2,100,000), is the most splendid city in the world, and the largest city in Europe after London.

On the NORTH and EAST coast are the towns of **Ca-lais'** (*kā-lā'*), **Bou-logne'** (*boo-loyn'*), **Dieppe** (*dē-ēp'*), and **Havre** (*hāv'r*), all ports. **Cher-bourg** (*shār-boorg*) is a strong fortress, and **Brest**, a naval station. **Nantes**, at the mouth of the Loire, has great trade. **Bor-deaux'** (*bōr-dō'*) is the second largest port.

On the Mediterranean are **Mar-seille'** (*mār-sāl'*), the chief port, and **Tou-lon'** (*too-lōng'*), the chief naval station. **Nice** (*nees*) is a noted place for invalids; it has a delightful climate.

Reims* (*reemz*), on a tributary of the *Seine*, has a famous cathedral, where the kings of France were formerly crowned. It is a great dépôt (*dā-pō'*) for wines. **Or'-le-ans**, on the *R. Loire*, was besieged by the English in 1428, and delivered by Joan of Arc, the Maid of Orleans. **Tou-louse'** (*too-looz'*), on the *Garonne*, is the largest city in the south of France.

AFRICA—EGYPT.

(C).—**Egypt** is the most important country in the north of Africa. It is divided into **Upper Egypt** (or Soudan, *soo'-dān*), **Middle Egypt** (or Nubia), and **Lower Egypt**, the last containing the delta of the Nile.

The only river is the **Nile**, which overflows its banks every year. Its average width, in lower Egypt, is half a mile. A number of canals are dug from it in various directions, to water the country, as rain seldom falls. The only fertile part is the *Valley of the Nile*, which averages about eight miles across.

[GO TO NEXT PAGE]

* The spelling *Rheims* is incorrect.

LESSON 77—Continued.

Wheat, rice, tobacco, hemp, and flax are largely grown and exported. *Fruits* of various kinds are abundant.

The government is **despotic**, under a **Khe-dive'** (*kě-deev'*) who is *hereditary*, and has the authority of a king. He owes allegiance to Turkey.

Cai-ro (*ki'-rō*) (330,000), on the *Red Sea*, is the capital. It contains some very beautiful *mosques*, or Mahomedan churches. The commerce of the city is very extensive. **Al-ex-an'-dria**, **Ro-set'-ta**, and **Dam-i-et'-ta** are ports on the Nile. **Port Said** (*sād* or *sā-ed'*) and **Su'-ez** are ports on the canal.

Nu'-bia is subject to Egypt, and lies to the *south* of it. It exports *senna*. The country contains many magnificent ruins.

THE OCEAN.

(D).—**Tides**. The waters of the ocean **rise** and **fall** at nearly regular intervals. As they *rise* they advance upon the land, and up the mouths of rivers. This rising is called the **flood tide**, and the greatest height to which the water flows is called **high water**.

The tide remains "*high*" for a few minutes, and then begins to fall or **ebb**, and the lowest point it reaches is called **low water**.

Causes of Tides. Tides are produced by the **attraction of the sun and moon** upon the waters of the earth, and the earth itself, but chiefly by the attraction of the moon.

"The '**attraction of gravitation**' is that force by which all bodies tend to draw, each the other, towards themselves."

Of the two bodies, the sun and the moon, the **moon** is the *nearest* to the earth, being only 240 thousand miles distant, it therefore exerts the greatest influence. By the universal law of attraction, the moon, in passing round the earth, has a tendency to **draw the earth** after it; and it really does draw it slightly out of the place it would occupy if there were no moon.

But this attraction of the moon acts upon every **particle** of the earth, and, as the attraction becomes *less* by distance, the particles composing the side of the earth **nearest the moon** will be more strongly attracted than those of the *opposite* side.

Now the **particles of water** are free to move independently of the earth, therefore those parts of the water which are nearest the moon—that is, the parts directly under the moon's path in the heavens—are **drawn away** from the earth and **form a heap** as



at T. At the same time the earth is drawn away from the waters at the opposite side of the earth, and so the waters on this opposite side, as at *t*, also become **heaped up**.

In this way **two billows** are formed, producing *high water* at the points T and *t*, and *midway* on each side it is *low water*.

Lesson 78.—Wednesday Morning. Work these Sums.

(1) Find the present worth of £68 4s., due 1 year 10½ months hence, at 3½ per cent.

(2) What is the present worth of £6,945 15s., due three years hence, reckoning compound interest at 5 per cent?

(3) I have to pay a bill of £722 10s. in 120 days. What is its present value at 5½ per cent?

(4) What does the following bill amount to : 2·25yds. silk at 3·85s. per yard ; 4·75yds. lace at 8·5s. per yard, and 30·75yds. cotton at 2·85d. per yard ?

(5) Find the amount of £120 at compound interest in the Post Office Savings Bank for 3 years at 2½ per cent.

Latin Roots.—Learn and Write.

cædo = I cut, I kill; *cæsus* = cut, killed. (*c* becomes *i*.)

concise, cut short ; brief.

decide, to cut down ; to settle.

incision, cutting into ; a cut.

precise, exact.

suicide, self-murder.

patricide, the murder of a father.

matricide, „ „ mother.

fratricide, „ „ brother.

Lesson 79.—Thursday Morn. Grammar. Write and Learn.

Ex. 1. *Analyse and Parse the words in italics.*

Traddles never said who the real offender was, though he smarted for it next day, and was imprisoned so many hours that he came forth with a whole church-yardful of skeletons swarming all over his Latin dictionary.—(Dickens.)

Ex. 2. *Correct these sentences, and show why they are wrong :* Both you and he is compelled to do it. “The Four Georges” are a most interesting book. Property should be returned to *their* rightful owner. Let every one please *themselves*. I am certain neither of you *were* there.

Ex. 3. *Give the meaning of these prefixes, and two examples of words in which they form a part :* De, dis, pro, post, trans, ex, pre.

Affixes.—Learn and Write.**I. AFFIXES FORMING NOUNS (Continued).**

(3.) *Denoting littleness.*

**en*, as maid-en, chick-en.

**kin*, as lamb-kin, pip-kin.

**let*, or } as rivu-let, stream-let,

**et* { as eagl-et, flower-et.

**ling*, as dar-ling, duck-ling.

**ock*, as hill-ock, bull-ock.

**y*, or } as bab-y, Tomm-y.

**ie* { as lass-ie, dogg-ie.

†*cle*, as parti-cle.

†*cule*, as animal-cule

†*ule*, as glob-ule

(4.) *Denoting rank, office, or state.*

**dom*, as duke-dom, king-dom.

**ship*, as steward-ship, master-ship.

**ric*, bishop-ric

†*ate*, as cur-ate, leg-ate.

†*cy*, cura-cy, magistra-cy

*—English ending.

†—Latin ending.

Lesson 80.—Friday Morning. Work these Sums.

(1) What is the present value of £275 6s. 8d., due 15 months hence, at 4 per cent per annum, simple interest?

(2) £578 1s. 4d., due 3 years and 4 months hence, at $4\frac{1}{2}$ per cent. Find its present worth.

(3) Find the present value of £598 9s. 9d., due at the end of one year 115 days, at $2\frac{1}{2}$ per cent.

(4) What part of £5 9s. is £4 13s. 5 $\frac{1}{2}$ d.?

(5) Add $\frac{1}{8}$ per cent to £27,500.

COMPOSITION.—Write an **essay** on the proverb "*Little strokes fell great oaks.*" Illustrate by any other proverb similar in meaning. Show that nothing valuable can be obtained without perseverance, that labour to be of benefit must be regular, and done with an object in view. Illustrate by any anecdote which teaches a lesson of perseverance.

SEVENTEENTH WEEK.**Lesson 81.—Monday Morning. Learn.**

PSALM CXIX., Verses 129—136; OR ELSE LEARN—

THE TRIAL SCENE—(Continued).

Salar. My lord, here stays *without*¹
A messenger with letters from the doctor,
*New come*² from Padua.³ (65)

Duke. Bring us⁴ the letters. Call the messenger.
*Enter NERISSA*⁵ *dressed like a lawyer's clerk.*

Duke. Come you from Padua, from Bellario?

Ner. From *both*⁶, my lord. Bellario *greet*⁷ your grace.⁸
(*Presenting a letter.*)

Bass. Why dost thou *whet*⁹ thy knife so *earnestly*¹⁰?
Shy. To cut the *forfeiture*¹¹ from that *bankrupt*¹² there. (70)

Gra. Not on thy sole, but on thy *soul*,¹³ *harsh*¹⁴ Jew,
Thou makest thy knife *keen*,¹⁵ but no metal can,
No, not the hangman's axe, bear half the keenness
Of thy sharp *envy*.¹⁶ Can no prayers pierce thee?¹⁷

Shy. No, none that thou hast *wit*¹⁸ enough to make. (75)

1. Outside the court. 2. Just come. 3. (Pro. *pād'-ū-ā*). An ancient city in Lom'-bār-dy, in the North of Italy, about 20 miles S.W. from Venice. 4. Me; it is the custom for royal personages, when speaking of themselves, to use the first person plural, instead of, as is usual, the first person singular. 5. Wife of Gratiano, and waiting-maid to Portia. 6. That is, from Padua and Bellario. 7. Sends kind wishes; sends his compliments or respects. 8. See note 12, Lesson 56. 9. To sharpen. 10. Eagerly, with a will. 11. The fine, or penalty. 12. Antonio, who is unable to pay his debts. 13. Gratiano here means that the Jew's heart is as hard as a whet-stone. 14. Cruel, unfeeling. 15. Sharp. 16. Hatred; ill-will. 17. Pierce thy stony heart, and find within it some tender and good feelings. 18. Knowledge, wisdom.

Draw maps (A) Scotland, towns; (B) Holland and Belgium, physical; (C) North Africa.

Lesson 82.—Tuesday Morn. Geography. Write and Learn.**SCOTLAND—CHIEF TOWNS.**

(A).—IN THE BASIN OF THE CLYDE.—**Green'-ock**, the port of the *Clyde*, was the birthplace of James Watt, the inventor of the steam engine. It has extensive shipyards. **Dum-bar'-ton**, on the *Clyde*, has a famous castle built on a rock. **Glas'-gow** (488,000) is the largest city in Scotland. Its manufactures are immense (see Les. 67). **Pais'-ley** is noted for shawls and thread manufacture.

Ayr, on the coast, and **Kil-mar'-nock** are two important towns south of the *Clyde*.

ON THE EAST COAST.—**Mont'-rose**, on the *Est*, exports much corn. **Ab-er-deen'**, between the mouths of the *Dee* and *Don*, is the fourth largest city in Scotland. It is the seat of a university, has valuable granite quarries, and numerous shipyards. **Bal-mo'-ral** (*bäl-mö-räl*), a residence of the Queen, lies 45 miles to the west of Aberdeen. **In-ver-ness'**, at the mouth of the **Cal-e-do'-ni-an Canal**, is often called the capital of the Highlands. Charles Edward, the Young Pretender, was defeated at **Cul-lod'-en Moor**, near Inverness, in 1746. **Wick**, on the north-east coast, in Caithness, is the chief seat of the herring fishery.

EUROPE.—HOL'-LAND AND BEL'-GIUM.—PHYSICAL.

(B.)—These two separate countries are so similar in their physical features that they are best studied together. **BOUNDARIES.**—*North-west* by the **North Sea**, *south* by **France**, and the *east* by the **German Empire**.

SURFACE.—The coast is very low. The entire surface of **Hol'-land** is flat, forming part of the **Great Plain**.

A great part is below the level of the sea, which is kept out by means of *dykes* or embankments, and sand-hills or *dunes*. The sea sometimes breaks in and does great damage. The *south-east* of **Bel'-gi-um** is hilly, and covered with large forests. This part is rich in minerals, as **coal, iron, copper, lead, and building stone**.

RIVERS.—The mouth of the **R. Rhine**, and the **R. Meuse** or **Maas**, and the **Scheldt** (*skëlt*).

When the **Rhine** enters Holland from Germany, it is 2,000 feet wide. It soon forms a large delta, dividing into a great many branches.

CLIMATE AND PRODUCTIONS.—The climate is *cold, foggy, and damp*, and *unhealthy* near the sea. The *south-east* is the most temperate. The winters in Holland are often severe.

The **soil** is fertile and well-cultivated. There is much **pasture land**, and great attention is paid to the rearing of cattle. Ordinary English crops, together with **hemp, beetroot** (from which sugar is made), **chicory, and tobacco**, are cultivated.

LESSON 82—Continued.

AFRICA.—BARBARY STATES.

(C).—All the countries, along the *north* coast, from the Atlantic to Egypt, are called the **Bar'-ba-ry States**. They are bounded on the *south* by the Sahara.

The **Atlas Mountains**, which are rich in metals, run through **Marocco** and **Algeria**. There are many, short rivers and numerous lakes, especially in **Algeria**.

The *heat* is great. The hot wind from the desert, called the "*si-moon*," parches up everything, and is dangerous to man and animals.

With the exception of Egypt, this is the most fertile part of Africa. The chief productions are **fruits** of various kinds, **horses**, called "*barbs*," **morocco leather**, **ostrich feathers**, **wax**, and **coral**. Most of the trade in the interior is carried on by means of *caravans*. **Mour-zook'**, the capital of **Pez-zan'** (a country *south* of Tripoli and subject to its ruler), is the great *dépôt* for goods sent between *northern* and *central* Africa.

MA-ROO'-CO (capital **Marocco**) is governed by an *Emperor*, who is the most despotic sovereign in the world.

AL-GE'-RIA (capital **Al-giers'**) belongs to *France*, who conquered it in 1830.

TRIP'-O-LI is the most civilised of the Barbary States. It is governed by a "*Pacha*."

TU'-NIS, formerly a province of Turkey, is now a regency, nominally under the dominion of the Bey (*bā*), but really under the control of the "*French Resident*." It will probably soon be included amongst the foreign possessions of France. The chief town **Tunis** has great trade.

THE OCEAN—(Tides, continued).

(D).—**Attraction of the Sun in producing Tides**. The attraction of the moon is sufficiently powerful to raise up the waters, in those parts of the ocean directly under her, **five feet** higher than those of the parts not straight under her.

The **sun** also aids in this **lifting up** the waters, but his attraction is *less* than that of the moon, owing to his *immense distance* from the earth (92 millions of miles). He raises the waters directly under him, a distance of **two feet**, on both sides of the earth.

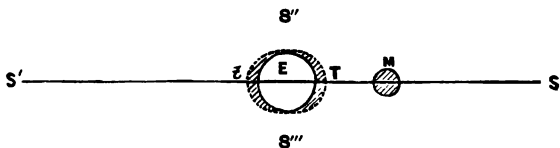
Thus, each of the two bodies, the sun and the moon, tend to produce a **flow of the tide** at the same moment, not only on the side nearest to itself, but also on the opposite side of the earth.

As the sun makes a tide of its own, it follows that when it forms a tide at the same time, and in the same place, as the moon the tide will be **higher** than usual.

[TURN OVER

LESSON 82—Continued.

The highest tides therefore occur when the sun and the moon are on the **same side** of the earth, as at S and M, or on **opposite sides** of the earth, as at S' and M. These high tides are called **spring tides**, and occur at the time of **new moon** (when the earth, moon, and sun are in the position, E, M, S), or at the time of **full moon** (when these three bodies are in the position, S', E, M).



Spring tides occur, therefore, *twice* in every lunar month (29½ days), because in that period there is *one new* and *one full* moon. When the sun and moon are *opposed* to one another (as when the sun is at S' or S'''), that is, when the moon is in her *first* or *third* quarters (at the times of **half moon**), the tides are then the *lowest*, and are called **neap tides**. There are, therefore, *two* neap tides every lunar month.

Spring = raised high ; **neap** = scanty or low.

When the flow of the tide rises highest at high water, the ebb falls the lowest at low water.

Lesson 83.—Wednesday Morning. Work these Sums.

(1) Find the present worth of £515, due in 9 months, at 4 per cent per annum.

(2) What is the present value of a bill for £458 8s. 9½d., due 31 days hence, at 5 per cent ?

(3) The present value of a debt, due in 6 months, at 5 per cent is £890 10s. What is the debt ?

(4) At what rate per cent simple interest will £50 amount to £62 10s. in 5 years ? (Do in the shortest way.)

(5) What was the average rate of interest received by a gentleman who had £300 out at 5 per cent ; £670 at 4½ per cent ; £900 at 4½ per cent ; and £300 at 4 per cent, besides the profit of 10 twenty-pound shares which returned him 10½ per cent ?

[GO TO NEXT PAGE.]

Latin Roots.—Learn and Write.**cāpio** = I take; **cāpiens, cāpiēntis** = taking; **cāptus** = taken.

(ā becomes ē or ī.)

capable, able to take, to seize; qualified.**anticipate**, to take before the time; to foresee.**capacious**, holding; large.**conceive**, to take hold of completely; to imagine.**captor**, one who takes (a prisoner).**captivate**, to make captive; to charm.**conceit**, something conceived in the mind; a high opinion of oneself.**accept**, to take to oneself; receive.**Lesson 84.—Thursday Morn. Grammar. Write and Learn.****Ex. 1. Analyse and Parse the words in italics.***Man is a child of sorrow, and this world,**In which we breathe, has cares enough to plague us;**But it hath means withal to soothe these cares;**And he who meditates on other's woe**Shall in that meditation lose his own.—(Cumberland.)***Ex. 2. Paraphrase the above (i.e., turn into prose).****Ex. 3. Give the meaning of these words so as to show the force of the prefix:** Embolden, forbid, withhold, uphill, abbreviate, affluence.**Affixes.—Learn and Write.****II.—AFFIXES FORMING ADJECTIVES.**(1.) *Denoting full of, abounding in, having.****ful**, as delight-ful, plenti-ful.***tive**, as act-ive, talkat-ive.***some**, as glad-some, whole-some***tous**, or } as religi-ous, glori-ous.***y**, as worth-y, guilt-y, wealth-y.***tose** } as verb-ose, joc-ose.***tical**, as poet-ical, method-ical.***tate**, as compassion-ate, affection-ate.***tish**, as whit-ish, brown-ish.

* = English ending. † = Latin ending. ‡ = French ending.

Lesson 85.—Friday Morning. Work these Sums.

(1) What is the worth of a debt of £3,754 12s. 6d., due 70 days hence, at 4 per cent, if paid at once?

(2) Find the present worth of £17,954 3s. 1½d., due 16½ months hence, at 2½ per cent.

(3) £787 6s. 6d. is due in 6 months at 4½ per cent per annum. What is its true present value?

(4) A ship is worth 20,000 guineas, what part of her can be bought for £1,312 10s.?

(5) What is the income of a gentleman who pays an income tax of £108 1s. 4½d., at the rate of 9d. in the pound?

COMPOSITION.—Write a letter to your father or mother on your *life at school*. Show in what way you have endeavoured to benefit by the instruction you have received, and how you hope to make it of use to you when you are grown up.

EIGHTEENTH WEEK.

Lesson 86.—Monday Morning. Learn.

PSALM CXIX., Verses 137—144; OR ELSE LEARN—

THE TRIAL SCENE—(Continued).

Duke. This letter from Bellario doth commend¹
A young and learned doctor to our court :—
Where is he ?

Ner. He attendeth here hard by,²
To know your answer, whether you'll admit him.

Duke. With all my heart ;—some three or four of you, (80)
Go give him *courteous conduct*³ to this place.

Enter PORTIA, dressed like a Doctor of Laws.

Give me your hand. Come you from old⁴ Bellario ?
Por. I did, my lord.

Duke. You are welcome : take your place.
Are you acquainted with the *difference*⁵
That holds this present *question*⁶ in the court ? (85)

1. Recommend. 2. Close by, outside. 3. Show him into the court with all the respect due to him as a learned doctor. 4. A term of respect. 5. Dispute. 6. The matter in dispute. Do you know all the particulars of the case the court has to decide upon ?

Draw maps (A) Scotland ; (B) Belgium ; (C) South Africa.

Lesson 87.—Tuesday Morn. Geography. Write and Learn.

SCOTLAND—MISCELLANEOUS FACTS.

(A).—The Scotch are a *careful, prudent, contented, industrious*, and well *educated* people.

The **Lowlanders** are the same race as the English.

The **Highlanders** are a Keltic race, and their language is called Gaelic (*gà-llk*) or Erse. They all used to wear a peculiar dress, and a very few of them do so yet.

Iron and **coal** are the most important minerals. **Granite** and **slate** are found in the *Highlands*, especially near *Aberdeen*.

Until 1603 Scotland was a separate kingdom under kings of its own, but on the death of Queen Elizabeth, James VI. of Scotland became our king, and was called James I. of England. Since then the two countries have been united.

The Scotch are nearly all *Protestants*, and the established form of religion is **Pres-by-te'-ri-an**.

The country is well supplied with good roads, railways, canals, and harbours.

LESSON 87—Continued.

EUROPE.—BELGIUM.—POLITICAL.

(B).—Belgium is one of the smallest countries of Europe, being only about *one-fifth* the size of England and Wales.

MANUFACTURES.—The manufactures are **woollen, linen, cotton, and lace** in the *north* and *west*, and **hardware and cutlery** in the *south* and *east*.

The **COMMERCE** is considerable. Large quantities of **coal** are sent to France.

Next to England, Belgium is the greatest coal producing country in Europe.

Belgium has a thick **POPULATION**, numbering above $5\frac{1}{2}$ millions. The government is a **limited monarchy**, similar to our own. Most of the people are **Roman Catholic**, but all sects are tolerated.

CHIEF TOWNS.—**Brus-sels'**, the capital (399,000), on the *Senne* (*sên*), a tributary of the *Scheldt*, is famous for its *lace* and *carpets*. To the *south* is **Water-loo'**, where Wellington and Blücher defeated Napoleon Bonaparte, 1815. **Ghent** (*g hard*), on the *Scheldt*, has a fine cathedral, and is the chief seat of the cotton trade. **Ant'-werp**, on the *Scheldt*, is the chief commercial city. **Li-ège'** (*lê-âzh'*) on the *Meuse*, is the "Birmingham of the Continent." **Mech'-lin** (*mêk'-lên*) or **Ma-lines'** (*mâ-lên'*) is noted for the manufacture of lace.

BRITISH POSSESSIONS IN AFRICA.

(C).—**Cape Colony**, in the *south* of Africa, is our chief possession.

The **Orange River** forms part of the *northern* boundary, and it is washed on the *south* and *west* by the **Atlantic**, and on the *east* by the **Indian** ocean.

The country rises in *three terraces* from the south to the centre; these terraces are separated by three ranges of mountains, of which the **Nieu'-veldt** (*nû'-vêlt*) and **Snowy Mountains** are the chief. A great number of rivers run across these terraces to the sea, but they are mostly dry in summer and are of little use.

The *climate* is very healthy, and is suited to Europeans. Most European plants are cultivated.

Cattle, sheep-rearing, and agriculture are the chief occupations of the colonists.

The *exports* are **wool, hides, wine, flour, and diamonds, gold, and ostrich feathers.**

Cape Town (45,000), on the *west coast*, on *Table Bay*, is the capital. The other chief towns are **Port Elizabeth**, on the *south-east coast*, **Grahamstown**, and **Kim'-ber-ley**.

This colony was first peopled by the Dutch. It was taken from them in 1806, and has remained in our hands ever since.

LESSON 87—Continued.

THE OCEAN—(Tides, continued).

(D).—**The Tidal Wave.** There are *two* flows and two ebbs of the tide in every 24 hours and 50 minutes, so that each ebb and flow occupies about $6\frac{1}{2}$ hours. The return of high tide is therefore about 50 minutes later each day than on the day before.

This follows because neither the moon nor the earth stands still. The earth rotates on its axis once in 24 hours, and in the course of $6\frac{1}{2}$ hours she has moved a **quarter** way round, the moon having also moved her position. At the end of this time the moon is attracting the waters towards her from the very place from which she had been drawing them away before. That is, she is now **raising** them where they were low, and **lowering** them where they were high. In another $6\frac{1}{2}$ hours the earth has made another **quarter** revolution, and so the moon produces the same effect as she produced $12\frac{1}{2}$ hours before.

This change is repeated *twice* every 25 hours, and so there are **two high tides** and **two low tides** every *lunar* day.

The spring tides do not occur *exactly* at the time of new and full moon, as the waters require some time to feel the full force of the influences of the sun and moon, but about a day and a half afterwards.

Lesson 88.—Wednesday Morning. Work these Sums.

(1) What is the true present worth of £846 6s., due in 3 months, at 3 per cent per annum?

(2) Find the present worth of £722 10s., due in 120 weeks, at $5\frac{1}{2}$ per cent.

(3) An account payable in 3 months, at 4 per cent, is worth at the present time £349 11s. 8d. How much is the account?

(4) If £90 lent for a year is repaid with interest by £95 8s., what rate per cent was charged?

(5) Simplify $\frac{5\frac{1}{2}}{7\frac{1}{2}}$ of $\frac{21.25}{.046875}$

Latin Roots.—Learn and Write.

cāpio = I take; **cāpiens, cāpientis** = taking; **cāptus** = taken.
(*ā* becomes *ē* or *ī*.)

deceive, to catch; to impose upon.

except, to take out; to exclude.

perceive, to take thoroughly into the mind; to understand.

imperceptible, cannot be understood or seen.

receive, to take back.

emancipate, to take by the hand (*mānus*), i.e., to set free.

occupy, to take up space.

Lesson 89.—Thursday Morn. Grammar. Write and Learn.

Ex. 1. *Analyse and Parse the words in italics.*

*There was a poet whose untimely tomb
No human hands with pious reverence reared ;
But the charmed eddies of autumnal winds
Built o'er his mouldering bones a pyramid
Of mouldering leaves in the waste wilderness.—(Shelley.)*

Ex. 2. *Paraphrase the above (i.e., turn into prose).*

Ex. 3. *Break up these words into their component parts (prefix, stem, affix), and give the literal meaning:* Armament, rebellion, suicide, homicide, subaqueous, precise, concise, decisive, incision.

Affixes.—Learn and Write.

II.—AFFIXES FORMING ADJECTIVES.

(2.) *Denoting of, or belonging to.*

*ish, as Brit-ish, fool-ish,
†al or } as brid-al, patern-al,
‡ial, } as fil-ial. [reg-al.
†an or }
‡ain, } as Europe-an, cert-ain.
†ar, as circul-ar, regul-ar,
singul-ar.

†ary, as milit-ary, necess-ary.
†id, as ferv-id, ac-id, tim-id.
‡ile, as juven-ile, infant-ile.
‡ine, as femin-ine, can-ine.
§ic, } as publ-ic, class-ic, arct-ic.
§ical, } as botan-ical.

* = English ending. † = Latin ending. § = Greek ending.

Lesson 90.—Friday Morning. Work these Sums.

(1) What is the present value of a bill for £53 2s. 8½d., due in 21½ months, at 3½ per cent ?

(2) On what sum does the compound interest for 3 years at 5 per cent amount to £165 10s. 1½d. ?

(3) What is the present worth of £968 payable in two moieties at 8 and 6 months, discounting at 4 per cent ?

(4) If 3½lb. of tea cost 8½s., what will 97½lb. cost ?

(5) Pencils costing 8s. 6d. a gross are retailed at a penny each. Find the gain per cent.

COMPOSITION.—Write a short **essay** on *money* under these heads :
(1) What it is. (2) Where and how made. (3) Kinds, e.g., paper money, coins, shells, &c. (4) Uses. (5) The abuse of money. (6) What is more valuable than money.

NINETEENTH WEEK.

Lesson 91.—Monday Morning. Learn.

PSALM CXIX., Verses 145—152 ; OR ELSE LEARN—

THE TRIAL SCENE—(Continued).

- Por.* I am informed *thoroughly*¹ of the cause.—
Which is the merchant here, and which the Jew?
- Duke.* Antonio and *old*² Shylock, both stand forth.
- Por.* Is your name Shylock ?
- Shy.* Shylock is my name.
- Por.* Of a strange *nature*³ is the *suit*⁴ you follow ; (90)
Yet in such *rule*,⁵ that the Venetian law
Cannot *impugn*⁶ you, as you do proceed.—
You stand within his *danger*,⁷ do you not ? (To Antonio.)
- Ant.* Ay, so he says.
- Por.* Do you *confess*⁸ the bond.
- Ant.* I do.
- Por.* Then must the Jew be merciful. (95)
- Shy.* On what compulsion must I ? tell me that.

1. Thoroughly, completely. 2. Here, a term of scorn. 3. Kind. 4. An action at law. 5. Strictly according to the law of Venice. 6. Oppose or call in question. 7. Power to injure ; you stand within his power to do harm. 8. Do you own that you signed the bond, or made the agreement ?

Draw maps (A) Ireland, outline ; (B) Holland ; (C) West Coast Africa.

Lesson 92.—Tuesday Morn. Geography. Write and Learn.

IRELAND.

(A).—BOUNDARIES AND EXTENT.—Ireland is an island, lying in the Atlantic, on the *west* of Great Britain. It is separated from England by St. George's Channel and the Irish Sea, and the North Channel.

In the nearest part it is 14 miles from Scotland, and 45 from England.

It is about 300 miles long, 180 broad, and contains 32,000 square miles, being a little larger than Scotland.

The number of inhabitants is 5,160,000. The population is much less than it was 40 years since. The people either come to England, or emigrate to the United States. Famines, and the unsettled state of the country, have tended to cause this emigration.

EUROPE.—HOLLAND.—POLITICAL.

(B).—The proper name for Holland is The Kingdom of the Netherlands. The country is about twice the size of Wales.

MANUFACTURES.—The manufactures are not important, ship-building and the distillery of spirits being the chief. Dairy farming is largely followed.

[GO TO NEXT PAGE.]

LESSON 92—Continued.

The **COMMERCE** is very considerable, and extends to all parts of the world.

The exports are mainly **butter, cheese, cattle, spirits, and colonial produce.**

Next to England, Holland is the wealthiest country of Europe.

The **POPULATION** is above 4 millions. The people are noted for their **courage, industry, and cleanliness**, and are well educated. The government is a **limited monarchy**, and the religion is chiefly **Protestant**.

The **FOREIGN POSSESSIONS** include most of the **East India Islands, Dutch Gu-a'-na** (*gē-ā'-nā*, hard *g*) in South America and several of the **West India Islands**.

CHIEF TOWNS.—**Am'-ster-dam**, the capital (338,000), is built on piles of wood at the mouth of the *R. Am'-stel*, and is intersected by canals. **Rot'-ter-dam**, on the *Meuse*, is the second important city. **The Hague** (*hāg*) is the seat of government. **Ley'-den** (*lē'-dēn*) is noted for its University. **U'-trecht** (*oo'-trēkt*), on the *Old Rhine* (a small branch of the delta), is famous for its treaties signed here.

SMALLER BRITISH POSSESSIONS IN AFRICA.

(O).—(1) **Na-tal'**, a colony on the Indian Ocean, *north-east* of Cape Colony, is similar to that country in its physical features. Its climate is much like ours.

Sugar, maize, coffee, and cotton are cultivated.

Pie'-ter-mar'-itz-burg, in the interior, is the capital. **D'Ur'-ban** (*dūr'-b'n*), on *Port Natal*, is the chief port.

(2) **Sen-e-gam'-bi-a**, on the *R. Gambia*, in the *west*. Chief town **Bath'-urst**. It exports *palm oil, ivory, and hides*.

(3) **Si-er'-ra Le-o'-ne**, *south* of Gambia. Capital, **Free-town**, chiefly inhabited by liberated slaves.

(4) **The Gold Coast**, on the *Gulf of Guinea*.

Cape Coast Castle, El-mi'-na (*ēl-mē'-nā*), and **La'-gos** are the chief towns. In 1872 the Dutch transferred all their settlements on this coast to the British crown. The Ashantee war (1873-4) arose partly out of this transfer.

(5 and 6) **As-cen'-sion** and **St. Hel-e'-na**, two islands in the *Atlantic*.

The first is used as a *naval station*, and imports *turtles*. **St. Helena** is a *calling place* for water, for ships going to and from *India* and *Australia*. The Emperor Napoleon was kept a prisoner here from 1815 till his death in 1821.

(7) The **Mau-rit'-i-us** (*mā-rish'-ē-ūs*), a beautiful and fertile island in the *Indian Ocean*.

It yields *sugar, rice, coffee, and tortoise-shell*. **Port Louis**, on the *north-west* coast, is the capital. Vessels to *India* call there.

LESSON 92—Continued.

THE OCEAN—(Tides, continued).

(D).—The tidal wave begins in the great Southern Ocean (Les. 7). If the surface of the earth were entirely covered with water this wave would travel round it, following the moon, in regular succession. But the land turns its course in various directions, so that the tide at any particular place may be caused by a wave raised many hours before in a part of the ocean several thousand miles away.

The tidal wave moves most quickly in deep water. In the Southern Ocean it flows at the rate of 1,000 miles an hour, but in the North Sea its velocity is scarcely 50 miles.

In the open sea the height of the wave is not more than from three to six feet, but in narrow channels, as the Bristol Channel, the Bay of Fundy, and the wide mouths of many rivers, it rises very high because the narrowing space prevents the water spreading.

Sometimes the tide, meeting the descending waters of a river, rushes up the estuary in a huge wave, which can be seen and heard from a great distance. This wave is called a bore. At the mouth of the Brahmaputra, the Hugley, the Severn, and in many other places, the advance of the bore is a very grand sight.

Inland Seas with narrow mouths, such as the Mediterranean and the Baltic, have little or no tides.

The tidal wave which washes the shores of Britain, comes up the Atlantic from the south-west. On approaching Britain it divides—one branch goes up the English Channel, another up the Irish Sea, and a third passes to the west of Ireland. These last two branches join, and flowing round the west and north of Scotland meet the one which has passed up the channel, off the south-eastern coast of England.

Lesson 93.—Wednesday Morning. Work these Sums.

TRUE DISCOUNT.

(1) Find the true discount on £920 5s., due in six months, at 4½ per cent per annum.

(2) What is the difference (to farthings) between the true and mercantile discount on £549 for 32 days at 5 per cent per annum?

(3) Find the difference (to nearest farthing) between the true discount and the interest on £313 19s. for 8 months at 6 per cent.

(4) Find the difference between seven-eighths of a shilling and two-thirds of 1s. 6d., and reduce the result to the fraction of 10s. 6d.

(5) A bankrupt owed £725, and his estate yielded only £475. What percentage of their money did his creditors lose?

Latin Roots.—Learn and Write.

cāpit = the head, *cāpitis*.

cape, a headland.

capital, the head or chief town.

captain, the head officer.

chapter, the head or division of a book.

capitation, so much per head.

decapitate, to cut off the head.

recapitulate, to repeat the heads, or chief points, of anything.

chieftain, the head of a tribe.

Lesson 94.—Thursday Morn, Grammar. Write and Learn.

Ex. 1. *Analyse and Parse the words in italics.*

A good *conscience* is to the soul *what health* is to the body ; it *preserves* a constant ease and serenity within us, and *more than* countervails *all* the calamities and afflictions *that can possibly* befall us.—(Addison.)

Ex. 2. *Correct these sentences, and show why they are wrong :* The soldiers *was* on the march. Had you *wrote* the letter at once, I should not have been here. The two *chiefest* properties of air are its gravity and elastic force.

Ex. 3. *Give the meaning of these words so as to show the force of the prefix :* Disarm, diffuse, explode, irregular, impede, compose contradict, decapitate.

Affixes.—Learn and Write.

II. AFFIXES FORMING ADJECTIVES (Continued).

(3.) *Denoting may or can be.*

†*ble*, as solu-*ble*, fee-*ble*.

†*able*, as mov-*able*, ami-*able*.

†*ible*, as aud-*ible*, vis-*ible*.

†*ile*, as duct-*ile*, frag-*ile*.

(4.) *Denoting state of being, or making.*

†*ant* or } as abund-*ant*, verd-*ant*.

†*ent*, } as preval-*ent*, abs-*ent*.

†*ate*, priv-*ate*, deso-*late*.

(5.) *Denoting likeness.*

**like*, as child-*like*, war-*like*.

**ly*, as friend-*ly*, brother-*ly*.

**ish*, as fool-*ish*, child-*ish*.

(6.) *Denoting made of.*

**en*, as wood-*en*, gold-*en*.

**ey* or *y*, as clay-*ey*, wind-*y*.

(7.) *Denoting without.*

**less*, as hope-*less*, heart-*less*, guilt-*less*.

*=English ending. †=Latin ending.

Lesson 95.—Friday Morning. Work these Sums.

(1) £787 10s. is due in one year at 5 per cent per annum. What would be the true discount?

(2) Find the true discount on £853 9s., due in 4 months, at 3 per cent per annum.

(3) A banker paid £872 4s. as the present value of a bill that had 6 months to run, after charging discount at 4 per cent per annum. What was the sum for which the bill was drawn?

(4) I bought a hat for 10s. 6d., and immediately after sold it at a profit of $12\frac{1}{2}$ per cent. How much did I get for it?

(5) Find the value of $491\frac{1}{2}$ yards of silk at 8s. $4\frac{1}{2}$ d. per yard.

COMPOSITION.—Write me a **letter** telling what are the *chief industries of England*. Show what these industries are, where they are carried on, and what makes them so important.

LESSON 97—Continued.

Bay, and Mouth of the Shannon, Din'-gle Bay, and Ken'-mare Bay. On the **SOUTH**, **Ban'-try Bay, Cork Harbour, and Wa'-ter-ford Harbour.** On the **EAST**, **Dub'-lin Bay, and Bel'-fast Lough.**

Lough in Ireland, like *Loch* in Scotland, is applied both to an arm of the sea and to a lake.

EUROPE.—THE GERMAN EMPIRE.—PHYSICAL.

(B).—The tract of country (about four times the size of England) extending from **Switzerland** and the northern ranges of the **Alps** to the **Baltic**, and from the **R. Rhine** to the **R. Vis'-tu-la**, consisted, until 1871, of several independent states. These are now all united under the King of Prussia, (who is called "Emperor of Germany,") and form "The GERMAN EMPIRE." The chief states are **Prus'-si-a, Ba'-va'-ri-a, Wür'-tem-burg, and Sax'-on-y.**

BOUNDARIES.—*North* by the **Baltic Sea**; *west* by **Holland, Belgium, and France**; *south* by **Switzerland and Austria**; *east* by **Russia**. The area is 209,000 square miles, and the population 45 millions.

SURFACE.—A large part of the country is level. In the *north* it is flat, forming part of the **Great Central Plain**. The *south* forms a tableland, and is hilly. The **Hartz Mountains**, in **Han'-o-ver**, yield **gold, silver, copper, and lead**. The **Mountains of Bo'-he'-mi-a** form part of the boundary on the *south-east*. The **Black Forest** is a low range of hills in **BA'-DEN** (*bd'-d'n*), *east* of the **Rhine**.

NORTH AMERICA.

(C).—**NORTH AMERICA** is very irregular in shape, and is more than twice as large as Europe. It is joined to *South America* by the **Isthmus of Pan'-a-ma'**, and has the **Arctic Ocean** on the *north*, the **Atlantic** on the *east*, and the **Pacific** on the *west*.

PARTS OF THE SEA.—**Baf'-fin Bay, Da'-vis Strait, Hud'-son Bay, Gulf of St. Law'-rence**, all in the *north*.

Gulf of Mex'-i-co and **Car'-ib-be'-an Sea** in the *south*, and **Gulf of Cal'-i-for'-nia** in the *west*.

CAVES.—**Cape Farewell**, in *Green'-land*; **Cape Race**, in *New'-found-land*.

MOUNTAINS AND PLAINS.—The *centre* of North America is a **great plain**. Towards the *north* it slopes to the **Arctic Ocean**, and towards the *south* to the **Gulf of Mexico**.

The **Rocky Mts.**, which consist in some parts of *three ranges*, run from *north* to *south* on the *west* side, and with the **Al-le-gha'-ny Mts.**, on the *east*, enclose the Great Plain.

There are several volcanoes in the Rocky Mountains.

LESSON 97—Continued.

THE OCEAN.

(D).—**Currents.** A *current* is a stream of water in the ocean flowing in a certain direction.

Currents are really **rivers in the ocean**, but on a much grander scale than any stream on the land.

The **winds** cause the *surface* of the water to be in *constant motion*, the **tides** cause a continual change in the *level* of the water, but **currents transfer** the water from one part of the ocean to another.

Currents cause the circulation of the waters of the ocean, just as winds do of the air.

Kinds of Currents.—There are *two* great divisions of currents :

(1) **Equatorial Currents**, which carry the *warm* water from the Tropics along the surface of the ocean towards the poles.

(2) **Polar Currents**, which carry the *colder* waters *below the surface*, from the Polar regions towards the equator.

The *two* chief causes which make the waters circulate are—

(1) **Difference of temperature** between the water of different parts of the ocean.

(2) **The force of prevailing winds.**

It is not always easy to see which of these two causes has the most to do in producing a current, but one or both of them must be present. Generally the first is the most important cause, the wind being often only a modifying agent.

In addition to the two causes just mentioned there are certain **influences** at work which cause currents to flow in particular directions. These are—

(1) **The earth's rotation** on its axis from *west to east*.

(2) **The direction of winds.**

(3) **The shape of the land.**

Lesson 98.—Wednesday Morning. Work these Sums.

(1) A bill for £755 5s. 9d. was drawn March 17 at 3 months, and discounted May 31 at 6 per cent. What was the true discount upon it?

(2) Find the present worth of a bill of £14,794 8s. 6½d., drawn May 24 at 5 months, and discounted June 29 at 3½ per cent.

(3) In a certain battle, out of 54,000 soldiers, 16 per cent were killed and wounded. How many escaped unhurt?

(4) How much money must I invest at 6½ per cent so as to produce me an income of £425?

(5) Reduce $\frac{2 + (\frac{1}{2} \text{ of } 5\frac{1}{2})}{\frac{2}{3} \text{ of } \frac{1}{2}}$ to its simplest form.

[GO TO NEXT PAGE.]

LESSON 98—Continued.

Latin Roots.—Learn and Write.

cēdo—I go, I yield; **cedens, cedentis**—going; **cessus**—gone, yielded; **cesso**—I leave off.

cede, to give up; to yield.

cease, to stop.

decease, death (i.e., the yielding up of life).

accede, to yield to; to give in, to agree.

concede, to grant.

intercede, to go between two parties as a peacemaker.

precede, to go before.

recede, to go back.

exceed, to go beyond.

proceed, to go forward.

succeed, to follow.

Lesson 99.—Thursday Morn. Grammar. Write and Learn.

Ex. 1. *Analyse and Parse the words in italics.*

I *well* remember

When, in a *secret* and *dread hour* of night,
Due sacrifice *performed* with barbarous rites
 Of muttered charms and solemn invocation,
 You bade the Magi *call* the dreadful powers
That read futurity, *to know* the fate
Impending o'er your son.—(Gray.)

Ex. 2. *Paraphrase the above (i.e., turn into prose).*

Ex. 3. *Break up these words into their component parts (prefix, stem, and affix), and give the meaning:* Concur, excursion, succour, proceed, exceed, recede, succeed, cessation, deceive, conception, anticipate.

Affixes.—Learn and Write.

III.—AFFIXES FORMING VERBS.

Denoting to make.

***en**, as dark-en, length-en, fast-en.

†**ate**, as regul-ate, complic-ate.

†**fy**, as puri-fy, beauti-fy, sancti-fy

†**ish**, as publ-ish, demol-ish, fin-ish

§**ise** or **ize**, as equal-ise, civil-ize,

author-ize.

IV.—AFFIXES FORMING ADVERBS.

(1.) *Denoting quality.*

***ly**, fierce-ly, just-ly.

* = English ending. † = Latin ending. ‡ = French ending. § = Greek ending.

(2.) *Denoting direction.*

***ward**, up-ward, home-ward.

Lesson 100.—Friday Morning. Work these Sums.

(1) Find the present value of £965 16s. 8d., due in 8 months, at $2\frac{1}{2}$ per cent.

(2) What must be the average of a school for the four attendances on the last two days of the week to raise the average for the week to 39, if the average for the first three days is 38?

(3) What is the value of $(7\frac{1}{2} + \frac{2}{3} \text{ of } 4\frac{1}{2}) \div (8\frac{1}{2} - \frac{1}{8} \text{ of } 15\frac{1}{2})$ of a guinea?

(4) What is the marked price of an article for which I pay £18 10s., having been allowed 20 per cent discount?

(5) Reduce '126d. to the decimal of £1.

[TURN OVER.

LESSON 100—Continued.

COMPOSITION.—If you were shipwrecked like *Robinson Crusoe*, describe what there would be in your circumstances which would give you pleasure, and what would be a cause of great trouble to you. In what part of the world would you prefer to be shipwrecked, and why?

TWENTY-FIRST WEEK.

Lesson 101.—Monday Morning. Learn.

PSALM CXIX., Verses 161—168 ; OR ELSE LEARN—

THE TRIAL SCENE—(Continued).

- Por.* Therefore, Jew, (110)
 Though justice be thy plea,¹ consider this,—
 That, in the course of justice,² none of us
 Should see salvation : we do pray for mercy ;
 And that same prayer³ doth teach us all to render⁴
 The deeds of mercy. I have spoke⁵ thus much (115)
 To mitigate⁶ the justice of thy plea ;
 Which, if thou follow,⁷ this strict court of Venice
 Must needs⁸ give sentence 'gainst the merchant there.
Shy. My deeds upon my head !⁹ I crave¹⁰ the law,
 The penalty and forfeit of my bond. (120)

1. Though you plead for justice. 2. If strict justice had its course. 3. That prayer also teaches us, etc. 4. To give ; to pay as in duty bound. 5. Spoken. 6. To make less severe. 7. Follow after. If you insist upon strict justice. 8. Must of necessity. 9. Shylock means he will bear the responsibility of what he does himself. 10. Demand.

Draw maps (A) Ireland ; (B) Germany, physical ; (C) North America.

Lesson 102.—Tuesday Morn. Geography. Write and Learn.

IRELAND.

(A).—ISLANDS.—Numerous but unimportant. Ach'-il Is. (ăk'-ū), Ar'-ran Is., and Val-en'-tia (vă-lên'-shyă), all on the west ; and Cape Clear Is. on the south.

Valentia is the terminus, on this side, of the Atlantic Telegraph cables between England and America. The first successful cable was laid in 1866. Achil means "*Eagle Island*."

The coast is high, rocky, and much indented on the north-west, the west, and the south-west. It is washed on these sides by the Atlantic, and receives the full force of its stormy waves. The eastern coast is low and flat. There are many good harbours on all sides of the island except the east.

On the north coast, west of Fair Head, is the Giant's Causeway, a curious natural pier, 700 feet long and 850 broad, formed of rock.

LESSON 102—Continued.

EUROPE.—GERMAN EMPIRE.—PHYSICAL.

(B).—RIVERS.—The **Rhine** rises in the Alps, and the **Elbe** rises in the *Bohemian Mountains*, both flow into the *North Sea*; the **O'-der** and the **Vis'-tu-la** both rise in the *Carpathians*, and flow into the *Baltic*. The upper course of the **Danube**, which rises in the *Black Forest*, waters the *south*.

The **Rhine** rises in Mt. St. Got'-hard, passes through **Lake Con'-stance**, and flowing generally in a *north-west* direction for about 700 miles, forms a large delta before it enters the sea. Its chief feeders are the **Maine** on the right, and the **Mo-selle'** (*mö-zëll'*) on the left bank. It is one of the *six* largest rivers of Europe.

CLIMATE AND PRODUCTIONS.—The climate is generally temperate and healthy, but the winters along the shores of the *Baltic* are severe. The **soil** is not very fertile, and there are large barren tracts in the *north*; in the *south* are extensive forests.

The hills are rich in minerals, and nearly half the **zinc** used in the world is got from Prussia. **Amber** is found along the *south-east* coast of the *Baltic*.

About three-fourths of the people are engaged in **agriculture**, **rye** being the chief grain. **Flax** is grown in all parts.

THE SEAS, &c., OF NORTH AMERICA.

(C).—THE SEAS OF NORTH AMERICA.—(1) The **ARCTIC OCEAN** contains many islands, and forms many bays on the *north* coast. It is frozen over for part of the year. The only large river it receives is the **Mack-en'-zie**, which drains a great many large lakes. There are numerous small and little-known rivers.

(2) THE GULF OF ST. LAWRENCE forms the mouth of the **River St. Lawrence**.

This river drains five large lakes—**L. Su-pe'-rior**, **L. Mich'-i-gan** (*mish'-ē-gān*), **L. Hu'-ron**, **L. E'-rie**, and **L. On-ta'-ri-o**. These lakes are all joined together, and are said to contain half the fresh water of the globe. **L. Superior** is about as large as *Ireland*. Between lakes *Erie* and *Ontario* are the **Falls of Ni-ag'-a-ra**, 160 feet high.

(3) THE GULF OF MEXICO receives the **R. Mis-sis-sip'-pi**, with its tributaries, the **Mis-sou'-ri** and **O-hi'-o**. This river is nearly 4,000 miles long. The **Rio Grande** also falls into the *Gulf of Mexico*.

THE OCEAN—(Currents continued).

(D).—The chief cause of oceanic currents is the *difference of temperature between the waters of different parts of the ocean*. Water is **expanded** and made **lighter** by heat, but **contracted** and made **heavier** by cold. Warm water has therefore a **less density** than cold; that is, a certain quantity of warm water will weigh less than the same quantity of cold water.

[TURN OVER.

LESSON 102—Continued.

In the **Tropics** the powerful rays of the sun *heat* and *expand* the waters of the ocean to a considerable depth. In the **Polar regions** the cold renders the water *dense* and *heavy*, causing it to have a tendency to sink to the bottom.

The **balance of pressure** (as it is called) between these two parts of the ocean is destroyed, the *colder water* flows in *below* the water in the region of the equator, and the *warm water* flows **over the surface** towards the poles. The cold water which has crept along the bed of the ocean gradually rises to the surface at the equator, and, becoming warm and light, flows back towards the poles.

In the open sea this stratum of cold water is always found towards the bottom, even at the equator, but the return flow of warm water is often more difficult to distinguish, as the winds and the shape of the land modify its direction.

Lesson 103.—Wednesday Morning. Work these Sums.

STOCKS.

(1) How much stock can I purchase by investing £2,850 in the 3 per cents at 75?

(2) What sum will purchase £720 stock at 84?

(3) When the 3 per cents are at 91½, how much stock can I buy for £2199?

(4) A woman bought a certain number of eggs at 2 a penny, and as many more at 3 a penny; she sold them all at the rate of 5 for 2d., and then found she had lost 4d. How many eggs did she buy? (You must suppose a number.)

(5) If the expenses of 7 persons for three months amount to 70 guineas, how much will 10 persons spend in 12 months at the same rate?

Latin Roots.—Learn and Write.

cerno = I see, I judge; crevens , creventis = seeing; crētus seen.	
discern , to see.	secretary , one trusted with secrets; a head clerk.
concern , to regard; things seen after (i.e., business).	certificate , a written judgment, as of character, &c.
discreet , prudent; judging carefully.	certainly , something judged to be true.
secret , hidden, not seen.	decree , a judgment.

Lesson 104.—Thursday Morn. Grammar. Write and Learn.

Ex. 1. *Analyse and Parse the words in italics.*

*It shall be my delight to tend his eyes,
And view him sitting in the house, ennobled
With all those high exploits by him achieved,
And on his shoulders waving down those locks
That of a nation armed the strength contained.*—(Milton.)

Ex. 2. *Correct these sentences, and show why they are wrong:* He fell on his knees to the Earl of Arundel *that* arrested him. Neither his father nor his mother *never* gave him authority to stay away. Neither John or James *have* attended to my orders.

Ex. 3. *Place a Latin prefix to each of these words, and so change them to an opposite meaning, as mortal, immortal: Noble, correct, pure, active, visible. What is the meaning of the prefix in these words:* Include, illumine, immerge.

Affixes.—Revise and Write Lesson 59.

Lesson 105.—Friday Morning. Work these Sums.

(1) What is the actual cash value of £6,350 in the 6 per cents, at 105?

(2) What quantity of stock can be purchased by investing £1,170, in railway stock at 112½?

*(3) How much must be given for £1,750 stock in the 3½ per cents, when the price is 96½?

(4) What is the rent of 20 acres 1 perch, if the rent of 13 acres 1 rood 14 perches is £187 10s.? (Work by decimals.)

(5) What sum of money, diminished by 625 of 16 of itself, will amount to 2s. 8½d.?

COMPOSITION.—It is your *birthday*, and you have received a nice present from a friend. Write a **letter of thanks**. Mention why a birthday is a time of pleasure to you, and the lesson each returning birthday teaches.

TWENTY-SECOND WEEK.**Lesson 106.—Monday Morning. Learn.**

PSALM CXIX, Verses 169—176; OR ELSE LEARN—

THE TRIAL SCENE—(Continued).

Por. Is he not able to *discharge*¹ the money?

Bass. Yes, here I *tender*² it for him in the court;

Yea,³ twice the sum: if that will not *suffice*,⁴

I will be bound to pay it ten times o'er.

On forfeit of my hands, my head, my heart:

(125)

[TURN OVER.]

LESSON 106—Continued.

If this will not suffice, it must appear,
 That malice bears down *truth*.⁵ And I beseech you,
*Wrest once*⁶ the law to your authority;
 To do a great right, do a little wrong,
 And *curb*⁷ this cruel devil of his will. (130)

1. Pay the debt. 2. Offer. 3. Yes. 4. Be enough; satisfy him. 5. Honesty. 6. For once let your authority put aside the strict law, and do a great right to Antonio (save his life) by doing a little wrong to Shylock (prevent him taking his forfeit by forcing him to take the money offered to him). This is said to Portia. 7. To check; to hold back.

Draw maps (A) Ireland; (B) North Germany; (C) North America.

Lesson 107.—Tuesday Morn. Geography. Write and Learn.

IRELAND.—PHYSICAL.

(A).—SURFACE.—Ireland is a **flat** country. The hills and mountains lie in groups, chiefly round the coast, being highest in the *south-west*. The interior is a large **central plain**, containing many *bogs*. The chief one is called the **Bog of Allen**.

Nearly half of the level surface of Ireland is covered with *bogs*. They are composed of decaying vegetable matter called "*peat*," and are often from 20 to 30 feet deep. The peat when dried is used for *fuel* instead of coal.

The chief mountain ranges are—**Mourne** (*mörn*) **Mts.**, in *Down*; **Wick'low Hills**, in *Wicklow*, the **Nock'-mel-e-down Mts.**, between *Waterford* and *Tipperary*; **Kerry Mts.**, of which the highest parts are **Mac-gil'-li-cud-dy Reeks**, and **Carn'tual** (3,400 feet), the **Mts. of Mayo**, the **Mts. of Don'-e-gal**, and the **Mts. of An'-trim**.

Ireland was formerly covered with thick forests, most of which have been cut down, and wood is now scarce.

EUROPE.—PRUSSIA.—POLITICAL.

(B).—**Prussia** is the largest and most important of the 26 States forming the German Empire. Its **MANUFACTURES** are valuable, being chiefly **cotton**, **iron**, **linen**, and **woollen**.

The **COMMERCE** is great; **timber** and **corn** being exported from the *Baltic*, and **hams**, **linen**, and **flax** from *Ham'-burg*, on the *Elbe*. The **POPULATION** is above 45 millions. The **GOVERNMENT** is an hereditary and constitutional **monarchy** under a **King** (see Lesson 97B).

CHIEF TOWNS.—**Ber-lin'** (1,200,000), on the *R. Spree*, a tributary of the *Elbe*, is the capital. It is a fine city, with important manufactures. **Dant'-zig** (*dän'-zig*), on the *Vis'-tu-la*, **Stet-tin'** (*stē-teen'*), on the *O'-der*, and **Mem'-el**, on the *Nie'-men* (*nē'-m'n*), are the chief ports on the *Baltic*.

[GO TO NEXT PAGE]

LESSON 107—Continued.

Bres'-lau (*brēs'-lou*), on the *Oder*, is the second city of Prussia, and the centre of the wool trade of Europe. **Stras'-burg**, **Co'-logne'** (*kō-loyn'*), **Düs'-sel-dorf**, **Bonn**, and **Co'-blentz** (*kō'-blēntz*) are all towns on the *R. Rhine*. **Ham'-burg**, at the mouth of the *Elbe*, is a great port.

Frank'-fort, on the *Maine*, was, till 1866, considered the capital of Germany. **Dres'-den**, on the *R. Elbe*, and **Leip'-sic** (*lip'-zik*), both in Saxony, are places of great trade, the latter being noted for its "book fairs."

THE SEAS, &c., OF NORTH AMERICA.—(Continued).

(C).—(4) THE CAR-IB-BE'-AN SEA and the GULF OF MEXICO are separated from the *Atlantic* by the **West Indian Islands**. These islands are divided into *three* groups—the **Greater An-tilles'** (*ān-teel'**), the **Lesser Antilles**, and the **Ba-ha'-mas**.

Ja-ma'-ca, in the *Greater Antilles*, all the **Ba-ha'-mas**, and most of the **Lesser Antilles**, belong to **England**.

(5) THE PACIFIC receives only a few rivers, most of which are short. The **Fra'-ser**, in *British Columbia*, the **Col-um'-bi-a**, in the *United States*, and the **Rio Co-lo-ra'-do** (*rē-ō kō'-lō-rā'-dō*), flowing into the *Gulf of California*, are the chief.

CLIMATE, SOIL, AND PRODUCTIONS.—The *north* is very cold, the *centre* temperate, and the *south* very hot. The soil is generally fertile. **Gold** and **silver** are found, as well as **iron**, **copper**, and **lead**, the last two near *L. Superior*. **Coal** and **iron** are abundant in the *Alleghanies*. There are very large forests. The great plains, towards the *west*, are covered with grass, with few trees, and are called **prai'-ries** (*prā'-rīz*).

Bears, **wolves**, and **bi'-sons** are among the wild animals.

THE OCEAN—(Currents continued).

(D).—The flow is not exactly north and south. If it were not for the **earth's rotation**, the warm waters of the equatorial region would flow, in the *northern* hemisphere, directly towards the *north* pole, and in the *southern* hemisphere, directly towards the *south* pole.

Now the earth **turns** on its axis, once in 24 hours, from *west* to *east*, carrying the *water* with it. At the equator the diameter of the earth is about 24,000 miles, hence the earth, and the water on it, is carried round at the rate of 1,000 miles an hour. At the meridian of 60° the earth's diameter is only 12,000 miles, and therefore the earth and water are only carried round at the rate of 500 miles an hour, while at the *poles* the motion is *nothing*.

[TURN OVER.

* The pronunciation in three syllables, *ān-tīl'-lēs*, is quite wrong. The word is of French origin.

LESSON 107—Continued.

The **cold currents** from the poles are constantly left behind when they arrive at a part of the ocean having a *greater* velocity than their own, and in the *northern* hemisphere they become *south-westerly* currents (that is, they flow towards the *south-west*, not directly south), and in the *southern* hemisphere they flow in a *south-easterly* direction.

The **warm currents** from the equator, when they arrive at a part of the ocean having a *less* velocity than their own, *travel faster* to the *east* than the parts of the earth they have arrived at. In the *northern* hemisphere, therefore, they become *north-easterly* currents (as the **Gulf Stream** in the Atlantic), and in the southern hemisphere south-easterly currents.

The direction of a current is that of the point to which it is flowing, but of a wind that *from which* it is blowing.

Lesson 108.—Wednesday Morning. Work these Sums.

(1) What amount of stock can be purchased by investing £741 5s. in the $5\frac{1}{2}$ per cents, at $98\frac{1}{2}$?

(2) How much money must be invested in India 4 per cent stock, at $103\frac{1}{2}$, to produce an income of £100 a year?

*(3) How much stock in the 3 per cent consols, at $95\frac{1}{2}$, can I buy for £951 5s.?

(4) A person bequeathed £5,707 10s., to be divided between his two sons in rates of $5\frac{1}{2}$ to $6\frac{1}{2}$. What were their respective shares?

(5) Find the compound interest on £3,750 for $3\frac{1}{2}$ years at 4 per cent per annum.

Latin Roots.—Learn and Write.

curro = I run; currentis = running; cursus = run.	
current , a running.	occur , to happen.
course , the road on which anything runs.	recur , to happen again.
concur , to run together.	excursion , a running away from home; a trip.
incur , to run into; to become liable to.	succour , to run up to; help.
	cursory , a running glance.

Lesson 109.—Thursday Morn. Grammar. Write and Learn.

Ex. 1. Analyse and Parse the words in italics.

*Around these wonders as I cast a look,
The trumpet sounded, and the temple shook,
And all the nations, summoned at the call,
From different quarters fill the crowded hall.*—(Pope.)

Ex. 2. Paraphrase the above (i.e., turn into prose).

Ex. 3. Before each of these words place the proper form of Latin prefix meaning "together": Habit, form, motion, mission, respond, operate.

Ex. 4. Make each of the new words in Ex. 3 into a sentence, showing its meaning.

Affixes.—Revise and Write Lesson 64.

Lesson 110.—Friday Morning. Work these Sums.

(1) How much must be paid for £268 16s. 6d. bank stock at 76½?

(2) Find the quantity of stock purchased by investing 2,000 guineas in the 3½ per cents at 94.

(3) By purchasing at 10 per cent discount, and selling at 4 per cent premium, £800 was cleared. What sum was invested?

(4) A grocer mixes 3cwt. of tea, which cost £40 10s., with 2cwt., which cost £29 10s., and sells the mixture at 2s. 9d. per lb; find the gain per cent.

(5) Find the value of 1·238lbs. + 5·613oz. + 9·715dwts. + 21·72grs.

COMPOSITION.—Write a short essay describing “*A fine morning in summer.*” Show what makes a summer morning pleasant, and why those only enjoy it thoroughly who are “up with the lark in the morning.”

TWENTY-THIRD WEEK.**Lesson 111.—Monday Morning. Learn.**

1 CORINTHIANS XIII., *Verses 1—7*; OR ELSE LEARN—

THE TRIAL SCENE—(Continued).

- Por.* It must not be; there is no power in Venice
Can alter a decree establishèd:
"Twill be recorded¹ for a *præ-ce-dent*;²
And many an error, by the same example,
Will rush into the state: it cannot be. (135)
- Shy.* A *Daniel*³ come to judgment! yea, a Daniel!
O wise young judge, how I do honour thee!
- Por.* I pray you, let me look upon the bond.
- Shy.* Here 'tis, most *reverend*⁴ doctor, here it is.
- Por.* Shylock, there's *thrice*⁵ the money offered thee. (140)
- Shy.* An oath, an oath, I have an oath in heaven.
Shall I lay *perjury*⁶ upon my soul?
No, not for Venice.

1. Written down, so that it may be remembered. 2. An example serving as a rule for the future. 3. A reference to the Prophet Daniel (Dan. v. 14). 4. Worthy of honour or respect. 5. Three times. 6. A false oath. "Lay perjury, etc." = shall I break through the oath I have made (Lesson 66, line 25), and sin against my own soul?

Draw map (A) Ireland; (B) S. Germany; (C) N. America.

Lesson 112.—Tuesday Morn. Geography. Write and Learn.**IRELAND—PHYSICAL.**

(A).—RIVERS.—Ireland is well watered. The chief rivers are the **Shan'-non**, flowing into the Atlantic on the *west*; the **Sla'-ney**, the **Lif'-fey**, and the **Boyne** flowing into the Irish Sea; the **Bann**

[TURN OVER.

LESSON 112—Continued.

and the **Foyle** in the *north*; and the **Lee**, the **Black'-water**, and the **Bar'-row**, with its tributaries the **Nore** and **Suir** (*shóór*), in the *south*.

The **Shannon** (214 miles) passes through Lakes **Allen**, **Ree**, and **Derg**, and forms a large estuary. It is navigable up to within seven miles of its source.

The **Liffey** is simply important because Dublin stands on it. The **Bann** has a very rapid current, and is noted for its abundance of salmon. It drains **Lough Neagh** (*lōh nā*), the largest lake in the British Islands.

Generally the rivers of Ireland are not so useful as those of England, but small vessels can get almost to their sources.

EUROPE.—SOUTHERN GERMANY.—POLITICAL.

(B).—The most important German States, *south* of the *R. Maine*, are **Ba'-va'-ria**, **Wür'-tem'-berg**, **Ba'-den** (*bā'-d'n*), and **Sax'-ony**.

MANUFACTURES, &c.—The people are chiefly employed in **agricul-ture**, and the cultivation of the **vine**, **beetroot** for sugar, and **tobacco**. Mining gives employment to many.

The population is about 17 millions. The Germans are an **industrious** and **honest** people, well educated, musical, and generally clever.

CHIEF TOWNS.—**Mu'-nich** (*mū'-nik*), on the *I'-sar* (*ē-zār*), a tribu-tary of the *Danube*, the capital of **BAVARIA**, is a beautiful city. **Stutt'-gart** is the capital of **WURTEMBERG**, and **Carls'-ruhe** (*kārls'-roo*) of **BADEN**. The city of **Ba'-den** is a noted watering-place.

Metz, on the *Moselle*, is one of the great fortresses of Europe. It was taken, along with **Stras'-burg**, from the French in 1870.

(C).—N. AMERICA.—COUNTRIES AND CAPITALS.

Countries of North America.	Capitals and Chief Towns.	Rivers, &c., they stand on.
Green'-land	JU-LI-ANS-HAAB'	<i>On Davis St.</i>
DOMINION OF CANADA—	(<i>yoo-lē-āns-hāb'</i>).	
Canada Proper—		
ON-TA'-RIO	OT'-TA-WA	" <i>the R. Ot'-ta-ica.</i>
QUE-BEC'	MONT-RE-AL'	" <i>R. St. Lawrence.</i>
New Bruns'-wick ..	FRED'-ER-IC-TON	" <i>R. St. John.</i>
No'-va Sco'-tia	HAL'-I-FAX	" <i>E. Coast.</i>
Prince Edward	CHAM'-LOTTE-TOWN	" <i>S. Coast Pr. Bd. I.</i>
British Col-um'-bia ..	VIC'-TO'-RI-A	" <i>Van-cou'-ver I.</i>
N. W. Territory	FORT YORK	" <i>Hudson Bay.</i>
Man-i-to'-ba	WIN'-NI-PEG	" <i>Red River.</i>
New-found-land"	ST. JOHN'S	" <i>East Coast.</i>
	WASH'-ING-TON	" <i>R. Po-to'-mac.</i>
United States	NEW YORK	" <i>R. Hud'-son.</i>
	BOS'-TON	" <i>E. Coast.</i>
	NEW OR'-LE-ANS	" <i>R. Mississippi.</i>
Mex'-i-co	MEX'-I-CO	<i>In the Interior.</i>
Central America	GUA-TE-MA'-LA (<i>guā-tā-nā'-lá</i>)	"

LESSON 112—Continued.

THE OCEAN—(Currents continued).

(D).—**Kinds of Currents.** Besides the two kinds of currents already mentioned (Polar and Equatorial), we may divide currents into—

- (1) **Constant.** Those which flow *regularly and continuously* (as the Gulf Stream), being caused by the rotation of the earth and differences of temperature.
- (2) **Periodical.** Those which flow only at *particular times* of the year. They are chiefly found in the *Indian Ocean*, and are mainly caused by the **monsoons**.
- (3) **Variable.** Those which *change their direction* as they are acted upon by winds, tides, and the flow of ice from polar regions (as several currents in the Pacific).
- (4) **Deep-sea Currents.** Those which are generally at *considerable depths* below the surface, and upon which the wind and tide have *little* effect.
- (5) **Drift Currents.** Those which are simply *surface currents* and are chiefly caused by the wind.

Currents in the Atlantic. The currents in the Atlantic are very numerous, but the chief are—

- (1) **The Equatorial Current.** This has its *origin* in the *Southern Ocean*, and flows from the *west* coast of Africa to the *east* coast of Brazil. It is chiefly caused by the trade winds which *push* the surface waters of the Atlantic *westward*.

When this current reaches the coast of **Brazil** it divides into *two* branches. One branch flows *eastward* across the Atlantic, then gradually turns *southward*, flowing down the *west* coast of Africa, and, forming the **Guinea current**, joins the northern current from the Cape of Good Hope. The other branch, which is much the larger, turns *northward* into the **Caribbean Sea** and the **Gulf of Mexico**, and issues from **Florida Strait** as the **Gulf Stream**.

Lesson 113.—Wednesday Morning. Work these Sums.

(1) To produce an annual income of £150, how much money must be invested in a 5 per cent stock at 102?

(2) By investing £1,334 in the $3\frac{1}{2}$ per cents at $76\frac{3}{4}$, what quantity of stock can be bought?

(3) Find the value in sterling money of £2,100 India 5 per cent stock at $104\frac{1}{2}$.

(4) Divide three times the sum of 4·0499 and 4049 by four times the difference of 160 and 4·6.

(5) Three persons on a tour spend £38 in 4 weeks; how long would £95 last a party of 5 at the same rate?

[TURN OVER.

LESSON 113—Continued.

Latin Roots.—Learn and Write.

clāmo = I cry out ; clamans , clamantis = calling ; clamatus = called.	
<i>claim</i> , a demand.	<i>exclaim</i> , to call out.
<i>claimant</i> , one making a claim.	<i>proclaim</i> , to call forth.
<i>clamour</i> , a calling out.	<i>reclaim</i> , to call back.
cresco I grow ; crevens , creventis = growing ; cretus = grown.	
<i>crescent</i> , growing (in shape like the new moon).	<i>decrease</i> , to grow less.
<i>increase</i> , to grow large.	<i>concrete</i> , growing together.

Lesson 114.—Thursday Morn. Grammar. Write and Learn.**Ex. 1.** *Analyse and Parse the words in italics.*

*When first young Maro, in his boundless mind,
A work to outlast immortal Rome designed,
Perhaps he seemed above the critic's law
And but from Nature's fountain scorned to draw ;
But when to examine every part he came,
Nature and Homer were, he found, the same.*—(Pope.)

Ex. 2. *Before each of these words place a Latin preposition meaning "to," and add an affix which will make the word into an abstract noun : Range, minister, tract, tend, test, rest.*

Ex. 3. *By means of the prefixes and Latin root, "cedo" = I go, I yield, "cessus" = gone, yielded, form one word meaning : To yield to ; to yield together or to grant ; to go before ; to go back ; to go forward ; to follow after.*

Affixes.—Revise and Write Lesson 69.**Lesson 115.—Friday Morning. Work these Sums.**

(1) What amount of stock can be purchased by investing £4,460 8s. in the $6\frac{1}{2}$ per cents at 106 $\frac{1}{2}$?

(2) For what sum will £9,250 Brazilian $4\frac{1}{2}$ per cents at 89 sell ?

(3) Find the quantity of stock purchased by investing £4,311 8s. 9d. in the $3\frac{1}{2}$ per cents at 85 $\frac{3}{8}$.

(4) Find by practice the value of 55 miles 7 furlongs 38 poles at £4 13s. 4d. per mile.

(5) At what rate per cent will £880 amount to £1,320 in $7\frac{1}{2}$ years ?

COMPOSITION.—Write a **letter** applying for a situation as errand boy. Mention your name, age, and qualifications for the place, and show how you mean to conduct yourself if you get appointed.

TWENTY-FOURTH WEEK.

Lesson 116.—Monday Morning. Learn.

1 CORINTHIANS XIII., *Verses 8—13*; OR ELSE LEARN—

THE TRIAL SCENE—(Continued).

Por. Why, this bond is *forfeit*;¹
And lawfully by *this*² the Jew may claim
A pound of flesh, to be by him cut off (145)
Nearest the merchant's heart. Be merciful;
Take thrice thy money; bid me *tear the bond*.³
Shy. When it is paid according to the *tenour*.⁴—
It doth appear you are a *worthy*⁵ judge;
You know the law, your *exposition*⁶ (150)
Hath been most *sound*:⁷ I *charge*⁸ you by the law,
Whereof you are a well-deserving *pillar*,⁹
*Proceed*¹⁰ to judgment: by my soul I swear,
There is no power in the tongue of man
To alter me: I *stay*¹¹ here on my bond. (155)

1. Forfeited; that is, the penalty mentioned in the bond must be paid. 2. By this bond. 3. "Tear the bond," and so destroy it. This is another opportunity given to the Jew. 4. That which is contained in the agreement (sometimes spelt "tenor"). 5. Good and just. 6. Explanation; interpretation. 7. Correct. 8. Beg; command. 9. Shylock means that Portia, on account of the "most sound exposition" which she had just given, was an ornament and support of the law, of great worth. 10. Begin at once to give judgment. 11. I remain firm in demanding the forfeit my bond gives me.

Draw maps (A) Ireland; (B) Austria; (C) United States.

Lesson 117.—Tuesday Morn. Geography. Write and Learn.

IRELAND.—PHYSICAL.

(A).—**LAKES.**—Ireland contains many lakes. Some of them are very large, and they are one of its principal physical features. The principal ones are—Lakes **Al'-len**, **Ree**, and **Derg**, through which the *Shannon* flows; **Upper** and **Lower Lake Erne**, discharged by the *R. Erne* into Donegal Bay; Lakes **Cor'-rib** and **Mask**, discharged into Galway Bay; the **Lakes of Kil-lar'-ney** amongst the Kerry mountains, and **Lough Neagh** (*nā*) discharged by the *R. Bann*.

The Lakes of Killarney are noted for their beautiful scenery. Near them is the mountain Carn'tual.

CLIMATE.—The climate is mild, and the winters are warm. More rain falls than in England, and the air is damp. This causes the fields and trees to always look bright and green, hence the island is often called the “green” or “**Emerald Island.**”

LESSON 117—Continued.

EUROPE.—AUSTRO-HUNGARIAN EMPIRE.—PHYSICAL.

(B).—This is the largest state, next to Russia, on the Continent of Europe, having an area of above 240,000 square miles, or more than double that of the British Islands.

BOUNDARIES.—*North* by **Russia** and **Germany**, *west* by **Germany** and **Switzerland**, *south* by **Italy**, the **Adriatic**, and **Turkey**, *east* by **Turkey** and **Russia**.

SURFACE.—Three-fourths of Austria is mountainous. In **Hungary** is a large plain. The **Alps** stretch into the *south-west* of the country, extending nearly to **Vi-en'-na**, on the **Danube**. The **Car-pa'-thi-ans** commence on the *north* of the **Danube**, and extending in a semicircle, meet the river at the **Irongate**. The **Bo-he'-mi-an Mts.** enclose the **Plateau of Bohemia**; they comprise several ranges, and, with the **Carpathians**, are very rich in **gold**, **silver**, **copper**, **iron**, **quicksilver**, **coal**, and **salt**.

RIVERS.—The middle course of the **Danube**, with its tributaries, the **Inn**, the **Drave** (*drāv*), the **Save** (*sāv*), the **March**, and the **Theiss** (*tis*). The rivers **Elbe**, **Vistula**, **Dniester**, and **Pruth**, (*proot*) all rise in Austria.

CLIMATE AND PRODUCTIONS.—The climate is warm and healthy, and the **soil** is fertile. Austria is richer in minerals than any other country in Europe. The **vine** is largely cultivated, and in the *south* the **mulberry** is grown for the feeding of silkworms.

THE UNITED STATES.

(C).—The **United States** consists of the *central* and *southern* portion of North America, with an area of nearly four million square miles, that is, the country is nearly the size of Europe.

It is a **Federal Republic** governed by a **President**, who is elected every *four* years, and by *two* **Houses of Congress**.

The President, during his term of office, performs nearly all the functions of a King. The Houses of Congress are somewhat like our Houses of Parliament.

The country is divided into 38 states, 10 territories, and the District of Columbia, containing the city of **Wash'-ing-ton**, the political capital of the Republic.

The territories have no share in the general government, as they send no representatives to the House of Congress, nor do they vote for the President.

CLIMATE.—As the country lies within the north temperate zone, the climate is, on the whole, a healthy one. The States round the Gulf of Mexico are exceedingly hot.

[GO TO NEXT PAGE.]

LESSON 117—Continued.

PRODUCTIONS.—**Agriculture, Mining, and Commerce** form the chief occupations of the people.

The soil is fertile and well-watered. To the *west* are numerous barren tracts of rocky desert, and on the *southern* shores the land is low and rather unhealthy. The *north-east* part forms a good grazing ground. In the middle and western states **maize**, or Indian corn, is extensively grown, and the **ma'-ple tree**, from which sugar is made, also grows in the same parts. **Tobacco, cotton, sugar,** and **rice** are cultivated in all the southern states. The **vine** flourishes in all parts, especially in California and Ohio. **Corn** grows everywhere.

CURRENTS OF THE ATLANTIC (Continued).

(D.)—2. The Gulf Stream. This is the most wonderful and **important** of all the great currents of the ocean. It receives its name from the fact that it issues from the **Gulf of Mexico**.

The *main* branch of the **equatorial current** flows into the **Caribbean Sea** and the **Gulf of Mexico**. The water, driven by the *north-east* Trade Winds into this comparatively small sea, gathers force and **rushes** out of the **Florida Strait** with a velocity of five miles an hour.

It proceeds at first *northward*, along the coast of America, but after reaching **Cape Hat'teras** it turns to the *north-east*, and passes over the *southern* extremity of the **Banks of Newfoundland**, gradually increasing in breadth but decreasing in velocity and temperature. On leaving the **Banks of Newfoundland** it turns still more to the *east*, and crosses the Atlantic in a **broad shallow stream**. Its velocity has decreased so much that off the **Azores** its speed is only about ten miles a day.

Towards the **Azores** the Gulf Stream divides, *one* branch goes *southward*, and, when off **Cape Blan'co**, it turns *west*, and is driven by the Trade Winds into the *north* equatorial current.

The other part of the stream continues in its general *north-east* direction, and flows between the **British Islands** and **Iceland** under the name of the **North-East Drift Current**.

The main stream gives off a small branch, which, under the name of **Ren'nel's Current**, flows round the **Bay of Biscay**, and then joins the **Drift Current**.

Lesson 118.—Wednesday Morning. Work these Sums.

- (1) Find the cost of £572 10s. stock in the 3 per cents at $91\frac{1}{2}$?
- (2) By investing £5,081 12s. 6d. in bank stock at $286\frac{1}{2}$, what quantity of stock can be purchased?
- (3) Find the value in sterling money of £1,743 three and a quarter per cent stock at $82\frac{3}{4}$ per cent.
- (4) Find the value of $3\frac{3}{4}$ of $2\frac{1}{10} - [(4\frac{3}{8} \div 2\frac{2}{7}) \div (4\frac{3}{8} \div 1\frac{7}{8})]$.

[TURN OVER.]

LESSON 118—Continued.

(5) Find the exact value in money of $\cdot 04375$ of £2 10s. minus $\cdot 0625$ of 10s. 6d. minus $\cdot 16$ of 2d.

Latin Roots.—Learn and Write.

duco = I lead; *ductus* = lead; *dux* = a leader.

duke (Fr.), a leader.

ductile, able to be drawn out.

adduce, to bring forward.

induce, to persuade; to lead.

introduce, to lead in.

produce, to bring forth.

reduce, to bring down.

educate, to draw out the powers of the mind.

aqueduct, a bridge for leading water over a valley (*āqua* = water).

viaduct, a bridge for carrying a road over a valley.

Lesson 119.—Thursday Morn. Grammar. Write and Learn.

Ex. 1. *Analyse and Parse the words in italics.*

Prince Henry. I never thought to hear you speak again!

King Henry. Thy wish was father, *Harry*, to that thought!
I stay too long by thee, I weary thee.

Stay but a little, for my cloud of dignity
Is held from falling with so weak a wind

That it will quickly drop.—(Shakespeare.)

Ex. 2. *Correct these sentences, and show why they are wrong:* We are dependent of you for many kindnesses. There is a difference of opinion between these three men. He can read as good as I. Few boys could write quicker than he.

Ex. 3. *Break up these words into their component parts (prefix, stem, and affix), and give the literal meaning as shown by these parts:* Outlandish, unfortunate, forerunner, enfeeblement, embolden, embellishment, bedim.

Affixes.—Revise and Write Lesson 74.

Lesson 120.—Friday Morning. Work these Sums.

(1) How much stock at $97\frac{1}{2}$ will £2,468 3s. 9d. purchase?

(2) I have £3,060 in the 3 per cents at $85\frac{1}{4}$, what is its actual cash value?

(3) The $3\frac{1}{2}$ per cent stock of the Metropolitan Board of Works is at $106\frac{1}{4}$; what amount of the stock will £2,470 6s. 3d. purchase?

(4) A man cuts off $\frac{1}{3}$ of a plank, and then $\frac{1}{4}$ of the remainder; what fraction of the whole is left?

(5) A man earns 25s. per week. He spends on food 15s. 6d., on lodgings 3s. 6d., and on clothes 2s. 6d.; what percentage of his earnings does he spend on these three things?

COMPOSITION.—Write a short essay on the proverb "*Liar should have good memories.*" Show that lying is a mean, cowardly, unmanly, as well as a wrong thing. Point out that (1) lies are hard to be remembered because many, whereas truth is but one. (2) A lie is often seen to be one to the hearer at once, but the teller of it takes little notice of it. (3) Hence, what a liar has forgotten, the hearer of it may put him in mind of long after.

TWENTY-FIFTH WEEK.

Lesson 121.—Monday Morning. Learn.

PSALM I. ; OR ELSE LEARN—

THE TRIAL SCENE—(Continued).

- Ant.* Most heartily I do beseech the court
To give the *judgment*.¹
- Por.* Why, then, thus it is :
You must prepare your *bosom*² for his knife.
- Shy.* O noble judge ! O excellent young man !
- Por.* For the *intent*³ and purpose of the law (160)
*Hath*⁴ full relation⁵ to the penalty,
Which here appeareth *due*⁶ upon the bond.
- Shy.* 'Tis very true : O wise and *upright*⁷ judge !
How much *more elder*⁸ art thou than thy looks !
- Por.* Therefore lay bare your bosom.
- Shy.* Ay, his breast : (165)
So says the bond ;—Doth it not, noble judge !—
'Nearest his heart : ' those are the very words.

1. Antonio, seeing there was no way of escape, begs the court to give judgment at once, and so waste no more time. 2. The bond stated that an "equal pound" was "to be cut off and taken in what part of your body pleaseth me." Shylock had decided to have it cut off "nearest the merchant's heart" (line 167), and had this stated in the bond (line 172), thus showing that his intention was to kill Antonio. 3. The meaning of the law plainly is, that every penalty, due upon a bond, must be paid. 4. "Intent" and "purpose" both refer to the same thing, so they take a singular verb. 5. Is fully recognised. 6. To be owing. 7. Just, honest. 8. How much older in wisdom are you than we should suppose your looks ! (*More elder* is an instance of the double comparative of adjectives which Shakespeare often uses.)

Draw maps (A) Ireland ; (B) Austria ; (C) United States.

Lesson 122.—Tuesday Morn. Geography. Write and Learn.

IRELAND.—PHYSICAL.

(A).—MINERALS.—**Coal** is found in various parts, but is little worked.

The coal is only of poor quality, and is chiefly used for the purpose of burning lime. Very little is used for fuel, as the labouring classes burn scarcely anything but peat. (*See Lesson 107.*)

Iron-ore is abundant, and in the middle of the 17th century there were extensive ironworks, but as wood became scarce they were abandoned.

Granite, ironstone, and marble, are found in all parts.

Copper, lead, and silver are found in *Kerry* and *Wicklow*, and considerable quantities of **gold** have also been found in *Wicklow*.

The mineral products of Ireland are not of great importance ; they would be very valuable if the mines were better worked.

LESSON 122—Continued.

EUROPE.—AUSTRO-HUNGARIAN EMPIRE.—POLITICAL.

(B).—**MANUFACTURES.**—There are few manufactures and little commerce, **agriculture** and **mining** being the chief occupations of the people. **BO-HE-MI-A** is noted for **glass** and **paper**, **STYR-I-A** for **iron** and **steel**, and **SI-LE-SI-A** (*sī-lē-shē-ā*) for **cotton**, **linen**, and **woollen goods**.

BOHEMIA is a province, and **SILESIA** a duchy, in the *north*. **STYRIA** is a province to the *west* of **Hungary**.

The **POPULATION** is about 38 millions, most of whom are **Roman Catholics**. The **GOVERNMENT** is a **limited monarchy**, under an **Emperor**, who is also the **King of Hungary**.

CHIEF TOWNS.—**Vi-en'-na** (*vē-ēn'-nā*) (1,021,000), on the *Danube*, is the capital of **Austria**. It is a beautiful city. **Bu'-da** (*boo'-dā*) and **Pesth** (*pēst*), on opposite sides of the *Danube*, are joined by a beautiful bridge. They form the capital of **Hungary**. **Prague** (*prdg*), the capital of **Bohemia**, has great manufactures.

Cra'-cow (*krā'-kō*), on the *Vistula*, was the capital of **Poland**, when it was an independent kingdom. **Inns'-brück**, on the *Inn*, is the capital of the *Ty-rol* (*tīr'-röl* or *tē-röl*). **Tri-este'** (*trē-ēst'* or *trē-ēs'-tā*) on the *Adriatic*, is the chief port of **Austria**.

UNITED STATES—(Continued).

(C).—**MINERALS.**—The United States is rich in useful minerals. **Coal** and **Iron** are very abundant, they are especially worked in *Pennsylvania*. **Gold** is found in *Cal-i-for'-ni-a*, **Copper** in *Mich'-i-gan*, **Petroleum**, or **rock oil**, in various places in the *north*.

MANUFACTURES.—The manufactures are most important, **mechanical trades** being a special feature in the industry of the United States. **Iron goods** are made in the States of *Penn-syl'-va'-ni-a*, *O-hi'-o*, and *Mas-sa-chu'-setts*, **Pitts'-burg**, "the **Birmingham** of the States," being the centre of the trade. **Cotton goods** in the *north-east* states, **Low'-ell** being the chief seat. **Clocks** and **watches** are manufactured largely in *New Jersey*, they are cheap and are exported in large quantities.

THE GULF STREAM—(Continued).

(D).—The **temperature** of the Gulf Stream is considerably higher than that of the main body of the ocean. As it issues from the **Florida Strait** it has a temperature of about 77° in *winter*, and 83° in *summer*, and even after travelling 3,000 miles there is a difference in a winter day of several degrees between its waters and those of the surrounding ocean.

As it proceeds, it is met by a *cold* current from the *north*, called the **Arctic Current**, and along its whole course a cold current underlies it.

[GO TO NEXT PAGE.]

LESSON 122—Continued.

The colour of its waters is a *deep blue*, the greater intensity of colour being a consequence of the larger proportion of briny matter held in solution. Its course through the ordinary water is said to be clearly marked.

Influence of the Gulf Stream. The mild and moist climate enjoyed by *western* Europe, as compared with the corresponding latitudes of **America**, is often said to be due to the **influence of the Gulf Stream**. Learned men are, however, now of opinion that this is not the entire cause. The **Gulf Stream** becomes *dispersed*, and its waters have *thinned out* to a *mere film* by the time it reaches the middle of the Atlantic, so that its **distinctive velocity** and **heat** are greatly dissipated. It cannot therefore produce all the wonderful effects ascribed to it.

There is no doubt that **warm tropical waters** do reach the coasts of **Britain**, and even extend into the **Polar seas** as far as **Spitzbergen** (*g* hard), as drift wood, seeds, and fruits from the **West Indies** are frequently cast ashore on the coast of the *west* and *north* of Europe, but it is probable that these effects are partly due to the **general circulation** of the water-system of the globe which is constantly carrying **warm surface currents** from the equatorial region towards the poles.

Lesson 123.—Wednesday Morning. Work these Sums.

- (1) If I invest £1,700 in the 3 per cents at 85, what income do I derive ?
- (2) What sum must be invested in the 3 per cent stock at 87½ to produce an annual income of £460 ?
- (3) I possess £2,975 in the 3 per cent stock ; what is the annual income from it ?
- (4) Find the value of 27·225 acres at £120·36 per acre.
- (5) If a grocer pays £65 for four cwt. of tea, how must he sell it per lb. so as to gain 12 per cent ?

Latin Roots.—Learn and Write.

fācio = I do, or make ; **faciens**, **facientis** = making ; **factus** = made.

fact, something done ; a reality.

factory, a place where things are made.

manufacture, things made by the hand

(*mānus* = the hand).

benefactor, a well-doer (*bēnē* = well).

face, outside make, or form.

surface, upon the face.

fashion, make or form.

affect, to act upon.

effect, the result of doing.

Lesson 124.—Thursday Morn. Grammar. Write and Learn.

Ex. 1. *Analyse and Parse the words in italics.*

O, my Lord,
Press not a falling man too far; 'tis virtue:
 His faults *lie open* to the laws; let *them*,
 Not you, correct him. My heart weeps to see him
 So little of his great self.—(Shakespeare.)

Ex. 2. *Break up these words into their component parts (prefix, stem, and affix), and give the meaning as shown by these parts:* Education, precedence, conceivable, acceptance, capacious, currency.

Ex. 3. *By means of prefixes and the Latin root, "curro" = I run, "currens, currentis" = running, "cursus" = run, form one word meaning:* A running together or meeting of people; a running stream; to run or happen again; a running forth; to run together, to agree.

Affixes.—Revise and Write Lesson 79.

Lesson 125.—Friday Morning. Work these Sums.

(1) Find what sum must be invested in the $2\frac{3}{4}$ per cent stock at 73 to produce an income of £90.

(2) If £718 10s. 6d. is invested in the 3 per cents at $87\frac{1}{2}$, find the annual income arising from it.

(3) To derive an income of £83 2s. 6d. in the $4\frac{1}{2}$ per cents at 94, what sum of money must be invested?

(4) What sum will amount in $4\frac{1}{2}$ years to £1,209 8s. $7\frac{1}{2}$ d. at 5 per cent per annum?

(5) Twelve tons ten hundredweight of metal are obtained from 235 tons of ore. Find the percentage of metal.

COMPOSITION.—Write an **account** of the *Reindeer*. Where found—in Polar regions. Description: size, horns, coat of brown hair, cloven hoofs. Uses: The same as horses and cows with us. Food: Lichens and mosses. Constitutes the whole wealth of the Laplanders.

TWENTY-SIXTH WEEK.**Lesson 126.—Monday Morning. Learn.**

PSALM IV. ; OR ELSE LEARN—

THE TRIAL SCENE—(Continued).

Por. It is so. Are there *balance*¹ here to weigh
 The flesh?

Shy. I have them ready.

Por. *Have by*² *some*³ *surgeon*,⁴ Shylock, *on your charge*,⁵ (170)
 To stop his wounds, *lest*⁶ he do bleed to death.

[GO TO NEXT PAGE.]

LESSON 126—Continued.

- Shy.* Is it so *nominated*⁷ in the bond?
Por. It is not so *expressed*.⁸ But what of that?
*'Twere good*⁹ you do so much for charity.
Shy. I cannot find it; 'tis not in the bond. (175)
Por. You, merchant, have you anything to say?

1. Balances: a pair of scales. 2. Have near. 3. — A. This was a common use of the word in A.S., and had not died out in Shakespeare's time. 4. Doctor. 5. At your own expense. 6. For fear that. 7. Named; agreed to. 8. Mentioned; stated; set down in writing. 9. It would be a good action for you to do.

Draw maps (A) Ireland; (B) Switzerland; (C) United States.

Lesson 127.—Tuesday Morn. Geography. Write and Learn.

IRELAND—POLITICAL.

(A).—DIVISIONS.—Ireland is divided into four provinces—**Ul'-ster** in the north, **Lein'-ster** (*lin'-stēr* or *lĕn-stēr*) in the east, **Mun'-ster** in the south, and **Con'-naught** in the west. These provinces are again sub-divided into **thirty-two** counties.

The west and south are thinly populated.

INDUSTRIAL PURSUITS.—Agriculture, manufactures, and commerce.

(1) **Agriculture**.—Ireland is an agricultural country. The scarcity of coal prevents many manufactures; but both the climate and soil are suitable for grazing and dairy farming.

The **potato** is the chief article of food which is grown, and next in importance are **oats**, **flax**, and **hemp**. **Cattle** and **sheep** are reared in the south and west. **Hogs** and **poultry** are abundant everywhere.

EUROPE.—SWITZERLAND.—PHYSICAL.

(B).—BOUNDARIES.—North by **Germany**, east by **Austria**, south by **Italy**, west by **France**. It is not quite half the size of Scotland.

SURFACE.—It is the most mountainous country in Europe. The **Alps** cover about two-thirds of it. The highest peaks are **Mt. Rosa**, 15,208 feet high; the **Simp'-lon**, the **Mat'-ter-horn**, **Jung'-frau** (*yŭng'-frou*), **Mt. St. Ber'-nard**, and **Mt. St. Got'-hard**. The **Jura Mountains** separate Switzerland from France.

The name "**Alps**" means "the rocky mountains," or perhaps, "the pastures." The high peaks are covered with snow, and the valleys are filled with "**Glaciers**" (*glās'-i-ĕrz*),* or rivers of ice.

RIVERS.—The upper courses of the **Rhine**, with its tributary the **Aar** (*ār*); the **Rhône**, and the **Inn**, all on the north of the Alps; and the **Ti-ci-no** (*tĕ-chĕ'-nō*), on the south of the range.

[TURN OVER.]

*This pronunciation is the most correct, being nearest the French, to which language the word belongs. The pronunciation *glā'-shĭ-ĕr*, which is often used, somewhat confounds the word with **Glazier** (*glā'-zĭ-ĕr*) = one who sets glass in window frames, &c.

LESSON 127—Continued.

All these rivers rise near **Mt. St. Got'h-hard**. The **Rhine** flows through **Lake Constance**, and the **Rhône** through **Lake Ge-ne'-va**. The **Aar** drains a great many lakes. **Neu-châ-tel'** (*nûsh-â-têl'*), **Lu-cerne'**, and **Zü'-rich** (*zoo'-rit'*) being the chief.

UNITED STATES—(Continued).

(C).—**IMPORTANT TOWNS**.—**New York**, at the mouth of the **Hudson**, is the most important city and the seat of immense trade. **Brook'-lyn**, on **Rhode I.**, is an important suburb. **Wash'-ington** (109,200), on the **Po-to'-mac**, in the **District of Columbia**, is the capital. It is a commodious and beautiful city. **Rich'-mond**, on the **James River**, in **Vir-gin'-i-a**, is famous for tobacco. It was the head-quarters of the Confederate army during the war (1861-4). **De-troit'**, on the **St. Clair**, in **Michigan**, is famous for shipbuilding. **Chi-ca-go** (*shê-kâ'-go*), on **L. Michigan**, is the largest depôt for corn in the world. It was nearly burnt down in 1871. **St. Louis**, on the **Mis-sis-sip'-pi**, has immense trade. **U'-tah**, on **Salt Lake**, is the seat of the **Mormons**. **Phil-a-del'-phia**, on the **Del'-a-ware** (*ware = wâr*), was the former capital.

The **POPULATION** is about 52,000,000, composed of settlers from **Europe** (chiefly **British**), and a few **American Indians**.

The **United States** were originally **British colonies**. On **July 4th**, 1776, **thirteen states** declared their independence, which was acknowledged by **England** in 1782. Hence the 13 stripes in "the star-spangled banner," and national flag, and the stars for the other states. In 1861 eleven of the slave states in the south attempted to separate from the Republic and form a **Con-fed'-er-a-cy**. A terrible war, lasting for 4 years, ended in the surrender of the southern states and the **abolition of slavery**.

THE GULF STREAM—(Continued).

(D).—The **general set** of surface waters is also assisted by the **prevailing winds** of the **northern hemisphere**, which are **south-westerly**. It is therefore more than probable that although the **Gulf Stream** has lost much of its velocity and heat by the time it reaches the middle of the **Atlantic**, a large portion of its warm waters are brought to the shores of **Europe**, and even into the **Arctic Ocean**.

Vessels **crossing the Atlantic**, from **Europe** to **America**, sail to the **northward** of the stream so as to avoid it, but on the return journey, as its flow assists the vessel's progress, the navigator gets into it as soon as he can.

The **exceptional coldness** of the climate of the **north-east** of **America** is, in a great measure, due to **cold currents** which flow from the **Greenland seas** down **each side of Greenland**, uniting about **Newfoundland**. The combined current then skirts the coast, the separation between it and the **Gulf Stream** being so distinct that it is commonly known as the "**Cold Wall**." This cold current is accompanied by dry and piercing **north-easterly winds**.

Lesson 128.—Wednesday Morning. Work these Sums.

(1) What annual return would be realised by investing £5,964 in the $3\frac{1}{2}$ per cent stock at 87?

(2) In order that my family may enjoy an annual income of £360, how much must I invest in the $4\frac{1}{2}$ per cents at 123?

(3) If I hold £8,640 10s. in the $3\frac{1}{2}$ per cent stock at 80, what income do I realise?

(4) Find the rent of 40 acres 3 roods 20 poles at £3.365 per acre.

(5) The children of a school can be arranged in rows of 14, 21, 28, or 42, and in each case there are 3 over. How many are there in school?

Latin Roots.—Learn and Write.

facio = I do or make : **faciens, facientis** = making ; **factus** = made.

suffice, to be enough (i.e., to be *deficient*, imperfectly done.

under what would surfeit). *feasible*, that can be done.

difficult, not easily done. *feat*, something done.

artifice, something made with skill or art. *feature*, outside form, or make.

artificial, made by art. *fac-sim-i-le*, that which is made exactly similar.

Lesson 129.—Thursday Morn. Grammar. Write and Learn.

Ex. 1. *Analyse and Parse the words in italics.*

Nor did he *doubt her more*,

But rested in *her fealty*, till he crowned

A happy life with a *fair death*, and fell

Against the *heathen* of the Northern sea

In battle, *fighting for* the blameless king.—(Tennyson.)

Ex. 2. *Paraphrase the above (i.e., turn into prose).*

Ex. 3. *Break up these words into their component parts (prefix, stem, and affix), and give the meaning as shown by these parts:* Unpleasantness, undertake, withdraw, aberration, unmindful, arrangement.

Affixes.—Revise and Write Lesson 84.

Lesson 130.—Friday Morning. Work these Sums.

(1) How much per year will £8,550 stock in the $3\frac{1}{2}$ per cents produce?

(2) Find what sum must be invested in the $4\frac{1}{2}$ per cent stock at 89 to produce an income of £70.

(3) That I may enjoy an income of £92 5s. from Norwegian $4\frac{1}{2}$ per cent stock at 105 $\frac{1}{2}$, what amount of money must I invest?

(4) Prove that $5\frac{1}{2} + 3\frac{1}{2} = 4(5\frac{1}{2} - 3\frac{1}{2})$.

(5) The population of a town increased 8 per cent from 1871 to 1881, and its population in the latter year was 9,720. Find its population in 1871.

COMPOSITION.—Write a **letter** to your sister in London telling her *how you spent your last holidays*.

TWENTY-SEVENTH WEEK.

Lesson 131.—Monday Morning. Learn.

PSALM VIII. ; OR ELSE LEARN—

THE TRIAL SCENE—(Continued).

- Ant.* But little ; I am arm'd, and well-prepared.—
 Give me your hand, Bassanio ; fare you well !
*Grieve not*¹ that I am fallen to this for you ;
 For *herein*² *Fortune*³ shows herself more kind (180)
 Than is her custom : it is *still her use*⁴
 To let the wretched man *outlive*⁵ his wealth,
 To view with hollow eye, and wrinkled brow,
 An age of *poverty*⁶ ;⁶ from which *lingering penance*⁷
 Of such misery doth she cut me off. (185)
- Shy.* We *trifle time*,⁸ I pray thee, *pur'sue sentence*.⁹
- Por.* A pound of that *same*¹⁰ merchant's flesh is thine ;
 The court *awards it*,¹¹ and the law doth give it.
- Shy.* Most rightful judge !

1. Do not blame yourselves for what has happened to me on your account.
 2. In this way ; by this which has happened to me. 3. Chance ; fate. 4. Always the way she uses us ; usually her custom. 5. Live longer than. 6. Old age spent in poverty. 7. Long endured suffering. 8. Waste time in this trifling and unimportant talk. 9. Go on with your sentence ; continue the sentence. Portia had already begun it (lines 143, 158, 165). 10. Used for emphasis. 11. Passes sentence, and gives it to you.

Draw maps (A) Ireland ; (B) Switzerland ; (C) Central America.

Lesson 132.—Tuesday Morn. Geography. Write and Learn.

IRELAND.—POLITICAL.

(A).—(2) **Manufactures.**—The only important manufacture is **linen**, which is carried on chiefly in *Ulster*, at **Bel-fast'**, **New-ry**, and **Drog'-he-da** (*drōh'-hē-dā*).*

Belfast also manufactures *cotton goods*.

(3) **Commerce.**—There is little *foreign trade*, but much *commerce* with England and Scotland.

The **exports** are cattle, pigs, dairy produce, and linen, the **imports** being manufactured goods and coal.

Dairy produce includes butter, eggs, cheese, and bacon.

The principal ports are **Dub'-lin**, on the *Lifey* ; **Bel-fast'**, on the *Lag'-an* ; **Cork**, on the *Lee* ; **Wa'-ter-ford**, on the *Suir* (*shōōr*) ; **Lim'-er-ick**, on the *Shannon* ; **Drog'-he-da** (*drōh'-hē-dā*), on the *Boyne* ; **Wex'-ford**, on the *Sla'-ney* ; **Shi'-go** and **Gal'-way**, on the *west coast*.

* The "h" is the guttural "h," impossible to be represented by phonetics. *Drōg'-hē-dā* and *Droy'-dā* are allowable pronunciations.

LESSON 132—Continued.

EUROPE.—SWITZERLAND.—POLITICAL.

(B).—CLIMATE AND PRODUCTIONS.—The climate varies with the nature of the country. The land is chiefly *pasture*, about one-sixth is forest. **Watches** and **jewellery** are made in the *west*, and **silks** and **cottons** in the *north*. The commerce with surrounding countries is great.

The **POPULATION** is nearly 3 millions, above half of whom are Protestants. The **GOVERNMENT** is a **Federal Republic**.

The Swiss are a *well-educated* people, and very *patriotic*. They have no language of their own, but French is spoken in the *west*, German in the *north* and *east*, and Italian in the *south*.

CHIEF TOWNS.—**Berne** (36,000), on the *R. Aar*, the seat of the Federal “**diet**” or parliament, is the capital. **Basle** (*bál*), on the *Rhine*, has great trade.

Ge-ne'-va, on *Lake Geneva*, the largest city, is noted for watches and jewellery. **Zü'-rich** has manufactures of silk and cotton.

MEXICO AND CENTRAL AMERICA.

(C).—The whole district between the United States and South America is in a very unsettled state. It is divided into the republics of **Mex'-i-co**, **Hon-du'-ras**, **Gua-te-ma'-la** (*gwá-tě-má-lá*), **San Sal-va-dor'**, **Nic-a-ra'-gu-a** (*nik-är-äg'-wá*), and **Cos'-ta Ri'-ca** (*kös-tá ree-ká*).

Mexico consists chiefly of a tableland sloping to the **Gulf of Mexico**, and on the *west* of which rises a chain joining the Rocky Mountains with the **An'-des** of S. America. The whole of the mountains are of volcano origin, and amongst them is the celebrated volcano of **Po-po-ca-ta-petl'**. Earthquakes are frequently felt.

The rivers are numerous but small, and the whole country, being dry and burning, except on the mountains, suffers from want of water.

MINERALS are very important productions, especially **silver**, which is abundant. Large quantities of **gold** and **copper** are also found. In addition to the metals, **logwood**, **mahogany**, **hides**, and various **drugs** are exported.

CHIEF TOWNS.—**Mexico** is the oldest city in America, it was founded by the Aztecs in the 14th century. **Ve'-ra Cruz** (*vā-rá kroos*), and **Tam-pi'-co** (*tām-pee'-ko*), are ports on the *Gulf of Mexico*. In **BRITISH HON-DU'-RAS** is **Ba-lize'** (*bá-leez'*), valuable for its exports of mahogany and dye wood.

CURRENTS—(Continued).

(D).—**Currents of the Pacific**. A branch from the great **South Polar Current** flows round **Cape Horn** and up the *west* coast of South America, under the name of the **Peru'vian**, or **Hum'boldt's Current**. On approaching the Equator it turns

[TURN OVER.]

LESSON 132—Continued.

westward, and joins the great **South Equatorial Current**. This latter curves along the *east* coast of **Australia**. The **North Equatorial Current** pours its waters into the basin formed by the **La'drones**, the **Phil'ippine Is.**, and **Japan Is.**, issuing, like the Gulf Stream, as the rapid and powerful **Japan Current**. One branch of this current flows through **Beh'ring Strait**, but the *main body* rushes across the Pacific, and is finally merged into the **North Equatorial Current**.

A cold under-current flows down Behring Strait.

Currents of the Indian Ocean. The currents of the *northern* part of the Indian Ocean vary their direction with the **Monsoons'** which blow for one half of the year (October to March) from the *north-east*, and the remaining half (April to September) from the *north-west*. The two chief *constant* currents are an equatorial current flowing *westward*, and the **South Connecting Current** flowing *eastward*.

The currents of the **Arctic** and **Antarctic Oceans** are not yet well known.

Lesson 133.—Wednesday Morning. Work these Sums.

(1) Find the annual income arising from the investment of £780 19s. 6d. in Victoria $4\frac{1}{2}$ per cent stock at 100 $\frac{1}{2}$.

(2) What sum must be invested in order to produce in the $4\frac{1}{2}$ per cent stock at 92 an income of £120?

(3) £1,220 is invested in the 3 per cent stock at 91 $\frac{1}{2}$. Find the yearly income arising therefrom.

(4) Add $\frac{5}{14}$ of a guinea, $\frac{5}{8}$ of a shilling, and $\frac{1}{12}$ of half-a-crown, and reduce the result to the decimal of £5.

(5) If 8 men, or 12 boys, can dig a ditch in 20 days, how long will three men and 5 boys be in doing it?

Latin Roots.—Learn and Write.

fēro = I bear, or carry; **ferens, ferentis** = bearing; **lātus** = borne, carried.

confer, to bring together.

defer, to put off.

differ, to disagree.

infer, to bring into; to deduce.

offer, to bring to; to put forward.

transfer, to carry forward.

fertile, bearing much.

ferry, to carry over the water.

lucifer, bearing light (*lux, lucis* = light).

Lesson 134.—Thursday Morn. Grammar. Write and Learn.**Ex. 1. Analyse and Parse the words in italics.**

Full oft the rescued boy she kissed,
 And often *pressed him* to her breast ;
For under *all* her dauntless *show*,
 Her heart had throbbed at *every* blow ;
Yet not Lord Cranstoun deigned she greet,
Though low he kneelèd at her feet.—(Scott.)

Ex. 2. Correct these sentences, and show why they are wrong: To speak *accurate* you have been twenty minutes *over* long. My brother, *that* I was so uneasy *about*, has come back at last. Is there no voice more *sweet* sounding than my own ?

Ex. 3. By means of the necessary prefixes and affixes, and the Latin root, "credo" = I believe, "creditus" = believed, form one word meaning: That which may be believed ; worthy of belief ; not fit to believe ; unworthy of belief.

Affixes.—Revise and Write Lesson 89.**Lesson 135.—Friday Morning. Work these Sums.**

(1) In order to obtain an income of £63 13s. 4d. in the $4\frac{1}{2}$ per cents at 90, what sum must I invest ?

(2) Find the amount of money which must be invested in the $3\frac{1}{4}$ per cent stock at 89 to produce £150 income.

*(3) What income is derived from £3,550 stock in the 3 per cents at 95 ?

(4) Divide 10000 by .025, and reduce the answer to a vulgar fraction with denominator 100.

(5) A publican sells ale at 2d. per half-pint and gains $33\frac{1}{3}$ per cent. What did the ale cost him per barrel ?

COMPOSITION.—"Punctuality is the soul of business." Take this proverb and write a **letter**, illustrating it, to a young friend who has got a situation in an office. Show what punctuality is, and what is implied by it ; how it should rule our actions, and what are the results of unpunctuality.

TWENTY-EIGHTH WEEK.**Lesson 136.—Monday Morning. Learn.**

PSALM XV. ; OR ELSE LEARN—

THE TRIAL SCENE—(Continued).

Por. And you must cut this flesh from off his breast ; (190)
 The law allows it, and the court awards it.

Shy. Most learned judge !—A sentence !¹ Come, prepare !

[TURN OVER.

LESSON 136—Continued.

- Por.* *Tarry*² a little :—there is something else.—
 This bond doth give thee here no *jot*³ of blood ;
 The words *expressly are*⁴ “ a pound of flesh : ” (195)
 Take then thy bond, take thou thy pound of flesh ;
 But, in the cutting it, if thou dost shed
 One drop of Christian blood, thy *lands and goods*⁵
 Are, by the laws of Venice, *confiscate*⁶
 Unto the state of Venica. (200)
Gra. O upright judge !—Mark, Jew,—O learned judge !
Shy. Is that the law ?
Por. Thyself shall see the act :⁷
 For, as thou urgest *justice*,⁸ be *assured*⁹
 Thou shalt have justice, more than thou *desirest*.¹⁰

1. The sentence is given. 2. Stop a bit. Don't be in such a hurry. Here is the turning point of the case. Shylock has owned that Portia has given just sentence so far, now she is going to turn the case against him. 3. The smallest quantity ; a drop. 4. The exact words are. 5. This includes everything belonging to him. 6. Forfeited to the state. 7. The copy of the law. 8. Hast begged me to give thee justice. 9. You may be quite sure. 10. Wishest for ; longest for ; carest for.

Draw maps (A) Ireland ; (B) Spain and Portugal ; (C) South America.

Lesson 137.—Tuesday Morn. Geography. Write and Learn.

IRELAND—CHIEF TOWNS.

(A).—ON THE EAST COAST.—**Belfast**, on the *R. Lag'an*, is the chief town in *Ulster*, and the seat of the principal manufactures, especially of *linen*. **Dublin**, on the *Liffey*, is the capital. It is a beautiful city, and has many splendid public buildings. **Kings'-town** is the port of Dublin. **Wex'-ford**, on the *Sla'-ney*, has trade in cattle.

IN THE BASIN OF THE BARROW AND SUIR.—**Kil-ken'-ny**, the second city of *Leinster*, has valuable quarries of black marble. **Wa'-ter-ford**, on the *Suir* (*shöör*), exports provisions.

IN THE BASIN OF THE LEE AND BLACKWATER.—**You'-ghal** (*yö'-häll*) exports provisions. **Cork**, the principal city in *Munster*, and the third city in Ireland, has considerable shipbuilding and great trade. **Queenstown**, on “Great Island,” in Cork harbour, has magnificent quays.

EUROPE.—THE SPANISH PENINSULA.—PHYSICAL.

(B).—BOUNDARIES.—Spain and Portugal form one vast peninsula, having **France** and the **Bay of Biscay** on the *north*, the **Atlantic** on the *west* and *south*, and the **Mediterranean** on the *east*.

[GO TO NEXT PAGE.]

LESSON 137—Continued.

SURFACE.—The peninsula consists of a **high tableland**, sloping to the Atlantic, and crossed by several ranges of mountains. The **Pyr'en-ees** separate it from France; and the **Mts. of Cas-tile'** (*kás-tee'*), the **Si-er-ra Mo-re-na**, the **Mts. of To-le-do**, and the **Sierra Ne-va-da** run across the country, the latter in the *south*.

RIVERS.—There are numerous rivers, but they are of little importance, since they flow in deep rocky valleys. The **Min'-ho** (*meen'-yo*) separates Portugal from Spain on the *north*, the **Dou'-ro** (*doo'-ro*), the **Ta'-gus**, the **Gua-di-a'-na** (*gwá-dě-á-ná*), and the **Gua-dal-qui'-vir** (*gwá-dál-kě-vēr*) all flow into the Atlantic. The **E'-bro** flows into the Mediterranean.

CLIMATE AND PRODUCTIONS.—The climate is warm and temperate. The soil is poor. The **chestnut** and the **cork** tree are abundant.

SOUTH AMERICA.

(C).—**SOUTH AMERICA** is a very compact continent, broad towards the *north* and pointed in the *south*, somewhat like Africa. It has few indentations, and is nearly twice as large as Europe.

The continent of South America is almost entirely situated in the southern part of the Western Hemisphere.

It is nearly surrounded by the ocean, being bounded on the *north* by the **Car-ib-be'an Sea**, on the *east* by the **Atlantic**, and on the *west* by the **Pacific**. The **Isthmus of Pan-a-ma'**, 30 miles wide, joins it to *North America*.

A railway, 57 miles long, has been made across the Isthmus, and it is proposed to join the **Atlantic** and **Pacific Oceans** by a **ship-canal**, from **Có-lon** (sometimes called **As'-pin-wall**) on the **Carib-bean Sea**, to **Pan-a-ma'** on the **Pacific**, so that ships may be saved the long voyage round Cape Horn. The work is in progress now.

PARTS OF THE SEA.—**Gulf of Da'-ri-en**, **Mouth of the Am'-a-zon**, **Mouth of the La Pla'-ta**, **Straits of Ma-gel'-lan**, and **Bay of Pan-a-ma'**.

CAPER.—**San Roque** (*rók*) on the *east* and **Cape Horn** on the *south*.

CURRENTS—(Continued).

(D).—**Uses of Currents.** There is an immense number of currents in every part of the ocean. These are all carefully marked on **charts**, so that sailors may know of them, and either *avoid* or *make use* of them.

The constant movements of the waters serve three great purposes—

(a) **They modify climate.**

(b) **They assist navigation.**

(c) **They aërate the ocean**, and make its waters of uniform saltness.

(a) The presence of large bodies of water always tends to **make the climate more mild and uniform**. Cold currents lower the temperature, and warm currents tend to raise it.

LESSON 137—Continued.

- (b) Ships **sailing against** a current are *retarded*, but sailing *with* the current they complete the voyage more quickly. Thus, in sailing to Australia, the voyage takes 97 days, much of it being against the current, but the return voyage, assisted by the currents of the Indian and Atlantic Oceans, only takes 63 days.
- (c) If the **water from the surface** did not *sink down* and carry with it a supply of **oxygen**, animal and vegetable life, at considerable depths, would be unknown. The **Mediterranean**, which has *no* vertical circulation, is almost destitute of animal and vegetable life at a depth and temperature which in the Atlantic is most favourable to it.

Lesson 138.—Wednesday Morning. Work these Sums.

(1) £3,425 15s. 2d. is invested in the 3 per cents at 91½. What yearly income arises therefrom?

(2) What sum of money must be invested in the Japan 7 per cent stock at 109½ in order to produce an income of £92 15s.?

* (3) A man invests £1,274 in the 3½ per cents at 91. What income does he derive therefrom?

(4) Out of 10,000 children born in one year 3,540 die in their first year. How many per cent of the number survive?

(5) Divide £1,001 10s. in the ratio of 5, 4, 3.

Latin Roots.—Learn and Write.

fluo = I flow; **fluens, fluentis** = flowing; **fluctus** = flown.

fluid, that which flows (as water).

fluent, flowing; ready in the use of words.

influx, a flowing in.

confluence, a flowing together.

affluence, a flow of wealth.

influence, a flowing into; power, authority.

fluctuate, flowing backwards and forwards; varying.

superfluous, flowing over; too much.

Lesson 139.—Thursday Morn. Grammar. Write and Learn.

Ex. 1. *Analyse and Parse the words in italics.*

*Hadst thou but shook thy head or made a pause,
When I spoke darkly what I purposed,
Or turned an eye of doubt upon my face,
As bid me tell my tale in express words,
Deep shame had struck me dumb.*—(Shakespeare.)

Ex. 2. *Break up these words into their component parts (affix, stem, and prefix), and give the meaning as shown by these parts:* Corporation, discriminate, antecedent, decapitate, excavate, centipede.

Ex. 3. *By means of suitable prefixes and affixes, and the Latin root, "fero" = I bear or carry, "ferens, ferentis" = bearing or carrying, and "latus" = borne or carried, form one word meaning:* A carrying together, or meeting; a carrying before, or choosing; a carrying over; a carrying under, or enduring; a carrying beyond.

Affixes.—Revise and Write Lesson 94.

Lesson 140.—Friday Morning. Work these Sums.

(1) What income is derived from £10,500 stock in the $3\frac{1}{2}$ per cents at 102 $\frac{1}{2}$, and how much money must be invested in the 3 per cents at 94 to produce the same income?

(2) The income derived from investing a certain sum in $3\frac{1}{2}$ per cent stock at 106 $\frac{3}{4}$ is £102 12s. Find the sum invested.

*(3) The $3\frac{1}{2}$ per cents are at 99 $\frac{7}{8}$. How much money must be invested in them to produce an income of £280?

(4) A bill due 3 months hence is discounted at 4 per cent, and its present value is £1,225. What is the amount of the bill?

(5) A grocer buys sugar at £1 5s. per cwt. and retails it at 3 $\frac{1}{2}$ d. per lb. Find his gain per cent.

COMPOSITION.—Write an **account** of *any important event* which has happened lately.

TWENTY-NINTH WEEK.**Lesson 141.—Monday Morning. Learn.**

PSALM XIX., Verses 1—7; OR ELSE LEARN—

THE TRIAL SCENE—(Continued).

Gra. O learnèd judge!—Mark, Jew:—a learnèd judge! (205)
Shy. I take this offer,¹ then,—pay the bond thrice,
 And let the Christian go.

Bass. Here is the money.

Por. Soft!²
 The Jew shall have *all justice*;³—soft!—no haste;—
 He shall have nothing but the *penalty*.⁴

Gra. O Jew! an upright judge, a learnèd judge! (210)

Por. Therefore, prepare thee to cut off the flesh.
 Shed thou no blood: nor cut thou less, nor more,
 But *just*⁵ a pound of flesh: if thou cut'st more,
 Or less, than just a *pound*,⁶—*be it but*⁷ so much
 As makes it light, or heavy, in the *substance*,⁸ (215)
 Or the division of the *twentieth part*⁹
 Of one poor scruple; nay, if the scale do turn
 But in the *estimation of a hair*,¹⁰—
 Thou diest, and all thy goods are confiscate.

1. Thrice the money (Les. 106, line 123.) 2. Stop. This is said to Bassanio.
 3. Complete justice; exact justice. 4. He had refused the money, and so could now only claim the penalty. 5. Exactly. 6. A just pound, an exact pound. 7. If it be only. 8. In the whole lump. 9. A scruple is a small weight, of which the twentieth part is a grain. 10. If the scale is uneven by a single hair's breadth; or if it wants but the weight of a single hair to make it balance.

Draw maps (A) British Islands; (B) Italy; (C) South America.

Lesson 142.—Tuesday Morn. Geography. Write and Learn.**IRELAND—CHIEF TOWNS, &c.**

(A).—IN THE BASIN OF THE SHANNON.—**Lim'-er-ick**, the fourth city in Ireland, has great export and inland trade. **Ath'-lone**, near *L. Ree*, is the principal military station in the west of Ireland.

ON THE WEST AND NORTH COAST.—**Gal'-way**, **Sli'-go**, **Don'-egal**, **Lon'-don-der'-ry**, are all ports having considerable trade.

IN THE INTERIOR.—**Mul'-lin-gar'**, in *West-meath*, is noted for wool and cattle markets. **Bal'-lin-as-loe''**, in *Galway*, on the *R. Suck*, a tributary of the *Shannon*, has the largest cattle fair in Ireland.

MISCELLANEOUS FACTS.—Most of the people are Roman Catholics, but *Ulster* is in general a Protestant province.

The whole country is well supplied with schools.

The Governor-General, called the Lord-Lieutenant (*lŕf-tŕn'-ănt*), rules for the Queen.

In 1800 the parliament of Ireland was united with that of England.

There are many good roads, and two canals join Dublin with the *Shannon*. Lines of railway join the chief towns.

EUROPE.—SPAIN AND PORTUGAL.—POLITICAL.

(B).—**Agriculture** is the chief employment, but is backward. The **vine**, the **mulberry**, and **maize** are largely cultivated. **Wine** is the most important production, but neither manufactures nor commerce are flourishing. **Lead** and **quicksilver** are abundant.

In both Spain and Portugal the GOVERNMENT is a constitutional monarchy, and the religion is **Roman Catholic**.

Both the Spanish and Portuguese are very ignorant, few of them can either read or write. Spain at one time possessed nearly all South America, and was one of the chief nations of Europe.

CHIEF TOWNS.—SPAIN.—**Ma-drid'** (367,700) is the capital, but **Bar-ce-lo'-na** is the chief city for trade and manufactures. **Ca-diz'** and **Ma-la'-ga** (*ă*), on the south coast, are important towns. **Se-ville'** (*să-veel'*) and **Gra-na'-da** (*ă*), inland towns, are both very ancient.

PORTUGAL.—**Lis'-bon** (260,000), on the *Tagus*, is the capital. **O-por'-to**, on the *Douro*, exports port wine.

Gib-ral'-tar, on a rock in the south of Spain, belongs to England.

SURFACE OF SOUTH AMERICA.

(C).—MOUNTAINS AND PLAINS.—The principal mountains are the **An'-des**, which run close to the west coast, from north to south.

Towards the north these mountains consist of two and sometimes of three ranges, with high tableland between them. There are very many high peaks covered with snow, and a great number of volcanoes, as **An-ti-sa'-na** (*ă*), **Cot-o-pax'-i**, and **Chim-bo-ra'-zo** (*ă* as in church). Earthquakes are frequent and do great damage, especially in **Pe-ru'** and **Ec-ua-dor'** (*ĕk-wă-dŕr'*.)

[GO TO NEXT PAGE.]

LESSON 142—Continued.

The rest of S. America consists principally of high tablelands, with low ranges of mountains running across them; in the *north* called the **Pa-ri-me** (*pá-rec'-mã*) **Mts.**, and in the *east* the **Mts. of Brazil**. S. America is called "The Land of Plains."

In the north of the continent are the **Lla'-nos** (*lã'-nôz*), or *treeless plains*, covered with long grass.

In the centre are the **Sil'-vas**, or *forest plains*, closely covered with trees and shrubs in the greatest luxuriance.

In the south are the **Pam'-pas** plains, similar to the Llanos, covered in part with a rich pasture, and immense thistles, over which very large herds of *horses* and *oxen* roam.

THE PLANETARY SYSTEM.

(D).—The **Plan'etary System**. The planetary system consists of a number of **heavenly bodies** suspended in space, having the **sun** as their centre and round which they turn.

This collection of heavenly bodies consists of—

(1) **The Sun.**

(2) **The Planets** with their **sat'ellites** or **moons**.

(3) **Comets**, **shooting stars**, and **me'teorites**.

The "**fixed stars**," as they are called, do not belong to the Planetary System. They shine with their own light, and are probably suns, each one the centre of a system of heavenly bodies.

The **planets** shine by **reflected light**, which they receive from the sun.

The Planetary System is often called the **Solar System**, because it has the sun for its centre. (L. *sol*=the sun.)

By the **universe** is meant the entire collection of heavenly bodies, of every kind, and every thing connected with them. It therefore includes the solar system and all the fixed stars.

The sun is an immense star. All the heavenly bodies composing the solar system revolve round it.

The **planets** (of which the **earth** is one) are *cool, solid bodies*, which revolve round the sun, and receive light and heat from him.

Sat'ellites (L. *satelles*=an attendant) or **moons** are *cool, solid bodies*, which revolve round **planets**, and keep with them as they go round the sun. The **moon** is the satellite of the earth.

Comets are white-hot bodies, probably partly solid, which revolve round the sun in a path which is very *el-lip'-ti-cal* (of an oval shape).

Shooting Stars are probably fragments of some heavenly body which, in detached masses, are revolving round the sun.

"As they rush into our atmosphere they are heated so hot that they burn, and the small ones are consumed before they reach the earth." These form the **me'teors** or **falling stars**. "The larger fragments, on the other hand, are not entirely consumed, though melted on the surface and considerably reduced in size." If they actually fall to the earth, as some do, they are called **me'teorites**.

Lesson 143.—Wednesday Morning. Work these Sums.

(1) If I place £1,556 5s. in the 4 per cents at $103\frac{3}{4}$, what should I lose by selling out at $101\frac{1}{4}$?

(2) I buy £850 stock at $90\frac{1}{2}$, and sell out when the price is 96. What do I gain?

(3) Find the compound interest on £240 for 3 years at 5 per cent interest.

(4) Find the value of $\frac{3\frac{1}{2} + \frac{2}{3} \text{ of } 1\frac{1}{2}}{4\frac{1}{2} \text{ of } 2\frac{1}{2} - 1\frac{3}{8}}$.

(5) Find the value of 2 tons 1cwt. 3qrs. 27lbs. at $9\frac{1}{2}$ d. per lb.

Latin Roots.—Learn and Write.

fortis=strong.

force, strength, power.

fortify, to make strong.

fortress, a fortified place built for strength.

forcible, having strength.

comfort, to strengthen; to cheer.

effort, a putting forth of strength; a trial of strength.

enforce, to put force upon; to urge.

reinforcement, an addition of strength.

Lesson 144.—Thursday Morn. Grammar. Write and Learn.

Ex. 1. *Analyse and Parse the words in italics.*

Yet when her master's children
 Would, clustering round her, stand,
 She sang them ancient ballads
 Of her own native land;
 And when at morn and evening
 She knelt before God's throne,
 The accents of her childhood
 Rose to her lips alone.—(Proctor.)

Ex. 2. *Paraphrase the above (i.e., turn into prose).*

Ex. 3. *By means of suitable prefixes and affixes, and the Latin root, "dico"=I say or tell, "dictus"=said or told, form one word meaning: To tell another; to speak against; to speak between, to forbid; a true speaking ("verus"=true); a speaking out, a law; a speaking good by ("vale"=farewell).*

Affixes.—Revise and Write Lesson 99.

Lesson 145.—Friday Morning. Work these Sums.

(1) Which is the better stock to invest £10,000 in, the 3 per cents at $90\frac{1}{2}$, or the 4 per cents at 101?

(2) A person invests £9,075 in the 3 per cents at $90\frac{3}{4}$, and on their rising to 91 transfers it to the $3\frac{1}{2}$ per cents at $97\frac{1}{2}$; what increase does he make thereby in his annual income?

*(3) Which is the better stock to invest in, the 3 per cents at $89\frac{1}{2}$, or the $3\frac{1}{2}$ per cents at $98\frac{1}{2}$?

[GO TO NEXT PAGE.]

LESSON 145—Continued.

(4) What sum laid out at simple interest for $3\frac{1}{2}$ years, at 4 per cent per annum, will amount to £805 2s. 6d.?

(5) What fraction must be added to the sum of $\frac{1}{12}$, $\frac{2}{36}$, and $\frac{2}{36}$ to make the result a whole number?

COMPOSITION.—Taking as your **theme** the *difference between wild and tame animals*, write a short essay on such wild and tame animals as you are acquainted with.

THIRTIETH WEEK

Lesson 146.—Monday Morning. Learn.

PSALM XIX., Verses 8—14; OR ELSE LEARN—

THE TRIAL SCENE—(Continued).

- Gra.* A second Daniel, a Daniel, Jew! (220)
 Now, *infidel*,¹ I have thee *on the hip*.²
Por. Why doth the Jew *pause*?³ Take thy forfeiture.
Shy. Give me my *principal*,⁴ and let me go.
Bass. I have it ready for thee; here it is.
Por. He hath refused it in the open court; (225)
 He shall have *merely*⁵ justice, and his bond.
Gra. A Daniel, still say I; a *second*⁶ Daniel!—
 I thank thee, Jew, for teaching me that word.

1. One who is not a Christian. 2. Now I have you fast (a term in wrestling). 3. Why do you stop from taking your forfeiture. 4. The 3,000 ducats (lines 30, 49, Lessons 66, 76). 5. Only; nothing but. 6. The Daniel of the Bible being of course the first.

Draw maps (A) Canada; (B) Turkey and Greece; (C) Brazil.

Lesson 147.—Tuesday Morn. Geography. Write and Learn.

(A).—The **British Empire**, the largest in the world, consists of **Great Britain** and **Ireland**, with *colonies* and *possessions* in all parts of the world.

A **Colony** is a settlement of people in another country, partly under the government of the country they left.

A **Foreign Possession** or **Dependency** is a portion of a foreign country subject to the Home Government, and having few colonists.

BRITISH POSSESSIONS IN EUROPE.

(1) **Hel'i-go-land** (= *Holy Land*), a small island in the **North Sea**, near the mouth of the *R. Elbe*, 400 miles from *London*.

(2) **Gib-ral'tar**, a strongly fortified rock in the *south* of **Spain**, in the *Mediterranean*.

(3) **Mal'ta**, a small island in the *Mediterranean*, south of *Sicily*.
 This possession is very valuable as a *naval* station, a *coaling* station, and a *packet* station. *Cotton*, *oranges*, and *lemons* grow in abundance.

LESSON 147—Continued.

EUROPE.—ITALY.—PHYSICAL.

(B).—The Kingdom of Italy includes the **Italian peninsula** and the islands of **Si'-cily** and **Sar-din'-i-a**. It is about twice the size of England and Wales.

BOUNDARIES.—*North* by **Austria** and **Switzerland**, *west* by **France** and the **Mediterranean**, *east* by the **A-dri-at'-ic Sea**.

SURFACE.—In the north is the large and fertile **plain of Lom'-bar-dy**, bounded on the *west* and *north* by the **Alps**. The **Ap'-en-nines** are a continuation of the Alps, and run nearly down the centre of the Peninsula. **Mount Ve-su'-vi-us**, on the *Bay of Naples*, and **Mount Et'-na**, in *Sicily*, are volcanoes.

RIVERS.—The **Po**, flowing through the plain of Lombardy into the *Gulf of Venice*; the **Ti-ci'-no** (*tě-chě'-no*), draining **Lake Mag-gi'-ore** (*măd-jō'-ră*); the **Ad'-da**, draining **Lake Co'-mo**; and the **Min'-cho** (*mĭn'-cho*), draining **Lake Gar'-da**, are its main tributaries. The **A'-di-ge** (*ăd'-ě-jă*) flows into the *Gulf of Venice*, and the **Ar'-no** and the **Ti'-ber** flow into the **Mediterranean**.

The Italian Lakes, all lying *south* of the Alps, are among the most magnificent in the world. They are very deep, and have beautiful clear water.

THE SEAS, &c., OF SOUTH AMERICA.

(C).—(1) **THE SEAS OF SOUTH AMERICA.**—The *Atlantic* receives the three principal rivers—the **O-rin-o'-co**, which drains the *Llanos*, the **Am'-a-zon**, which drains the *Silvas*, and the **La Pla'-ta**, which drains the *Pampas*.

The *Amazon* is the largest river in the world, and is about 4,500 miles long. At 400 miles from the sea, where the tide is felt, the river is a mile in width.

In the *South Atlantic* are the **Falk'-land Is.**, which belong to *England*, and **Tier'-ra del Fu-e'-go**, or *land of fire*—an island at the extreme south.

(2) **THE PACIFIC** receives no rivers of importance. Near the coast there are numerous islands, amongst which are the **Chin'-ca Is.**, off the coast of *Pe-ru'*, from which large quantities of *guano* are obtained.

CLIMATE, SOIL, AND PRODUCTIONS.—Except in the *south*, the climate is very hot, and the soil is generally fertile. There are numerous wild animals, and the mountains are covered with *forests* almost to the snow line.

Gold, silver, and diamonds are found in *Bra-zil'*, and **coal and iron** in other parts. **Maize and coffee** are largely grown.

THE PLANETARY SYSTEM—(Continued).

(D).—**The Sun.** The sun is the *nearest* of the **fixed stars**. It is an *immense globe* of white-hot (*in-can-des-cent*) vapour, and therefore shines by its own light.

[GO TO NEXT PAGE.]

LESSON 147—Continued.

It is 500 times larger than all the planets put together, and it would take nearly a million and a quarter of globes, the size of our earth, to make one globe the size of the sun. Its distance from the earth is about 92 millions of miles. This distance is so great that if a railway train could go to the sun at the rate of 30 miles an hour, it would take nearly 338 years for the journey. The same train could go round the earth in a month, but it would take 9 years to go round the sun.

The sun, like the earth, **rotates** on an **axis** from **west** to **east** in about 28 days. This was discovered by observing the motion of **dark spots** on its surface.

What the sun is like. The sun must be looked at through a piece of *smoked glass*, otherwise the observer may be blinded. It is then seen to be a **round, bright body**. This round bright part is called the **pho'tosphere** (= the bright surface of the sun which is the source of light). This bright surface is frequently seen to have dark patches on it called *sun spots*.

Sun Spots. Some of these spots are *very large*, as much as 50,000 miles across, whilst others are very small. They are **cavities** or **hollows** in the shining surface of the sun, and are not scattered all over his surface, "but are generally limited to those parts of it above and below the sun's equator." **Sun Spots** are not *one uniform dark patch*, but different shades of darkness represent different depths. The spots are constantly changing, and often break up with great rapidity. The presence of sun spots has probably a considerable influence upon our weather.

Lesson 148.—Wednesday Morning. Work these Sums.

(1) A person buys £500 India stock at $98\frac{1}{2}$, and sells out at $104\frac{1}{2}$; find his gain.

(2) The 4 per cents being at $82\frac{1}{2}$, what sum would be gained by selling out again at $86\frac{1}{2}$?

*(3) If I invest £1,200 in the 4 per cents at 72, what is my half-yearly dividend?

(4) Find the difference between the true and banker's discount on a bill of £769 10s. due 4 months hence, interest being at 4 per cent per annum.

(5) A man pays 2s. 6d. per month for the loan of £20; what rate of interest does he pay?

Latin Roots.—Learn and Write.

jācio — I throw; jactus = thrown.

eject, to throw out.

abject, cast off; worthless.

dejected, cast down.

ob'ject, a thing thrown in the way.

object', to throw in the way of.

project, a plan; a scheme.

projectile, something thrown.

adjective, a word added (thrown) to a noun.

interjection, a word thrown between.

Lesson 149.—Thursday Morn. Grammar. Write and Learn.Ex. 1. *Analyse and Parse the words in italics.**Anon*

We heard the lion *roaring* from *his* den ;
 We *saw* the large white stars *rise one by one* ;
Or from the darkened glen
Saw God *divide* the light with *flying flame*
 And thunder *on* the everlasting hills.—(Tennyson.)

Ex. 2. *Paraphrase the above (i.e., turn into prose).*

Ex. 3. *Give the meaning of these Latin prefixes, and three words in which they are each used :* Il (before an adjective), il (before a verb), ex, con, com, circum.

Latin Roots.—Learn and Write.

grādior = I walk ; *grādiens, grādiētis* = walking ;
gressus = walked ; *grādus* = a step.

<i>grade</i> , a step	<i>transgress</i> , to go beyond
<i>gradation</i> , going by regular steps	<i>gradient</i> , rising step by step, an incline
<i>gradual</i> , step by step	
<i>degrade</i> , to lower a step, to disgrace	
<i>grātia</i> = favour ;	<i>grātus</i> = thankful.
<i>grateful</i> , full of grace, thankful	<i>disagree</i> , not to be in favour with each other
<i>congratulate</i> , to wish much joy to anyone	<i>ungrateful</i> , without thankful feelings
<i>disgrace</i> , out of favour	
<i>gratify</i> , to do what is pleasing	

Lesson 150.—Friday Morning. Work these Sums.

(1) A person bought £1,750 stock at 101½ and sold it at 99¾ ; find the amount of his loss.

(2) Two brothers A and B had each £3,500. A invested his money in the 3½ per cents at 70, and B in the 4 per cents at 87½ ; which was the better investment ?

*(3) Jones invests £5,520 in the 3¼ per cents when they are at 92 ; Robinson invests £6,790 in the 3 per cents when they are at 97. Find the difference in their incomes.

(4) Simplify $\frac{2\frac{3}{4} \text{ of } \frac{5}{11}}{6\frac{3}{4} \text{ of } \frac{1}{11}} \div \frac{1\frac{1}{2}}{9}$

(5) At the rate of $\frac{1}{3}$ of a mile a minute a train takes $3\frac{1}{4}$ hours to reach a station, how long would it take at the rate of $\frac{7}{15}$ of a mile per minute ?

COMPOSITION.—“Take care of the pennies and the pounds will take care of themselves.” Write a letter to a boy younger than yourself telling him the meaning of this proverb, and show how he may himself carry out the lesson it teaches.

THIRTY-FIRST WEEK.

Lesson 151.—Monday Morning. Learn.

PSALM XXIII. ; OR ELSE LEARN—

THE TRIAL SCENE—(Continued).

- Shy.* Shall I not have *barely*¹ my principal !
Por. Thou shalt have nothing but the forfeiture, (230)
 To be so taken at thy *peril*.² But *tarry*,³ Jew ;
 The law hath yet another hold on you.
 It is *enacted*⁴ in the laws of Venice,
 If it be proved against an *alien*,⁵
 That, by *direct*⁶ or indirect attempts, (235)
 He seek the life of any *citizen*,⁷
 The *party*⁸ 'gainst the which he doth *contrive*,⁹
 Shall seize one half his goods : the other half
 Comes to the *privy*¹⁰ *coffer*¹¹ of the state ;
 And the *offender's*¹² life lies in¹³ the mercy (240)
 Of the duke only, 'gainst all other voice.

1. Even my principal. 2. Danger of losing all he had. 3. Stay a little longer. 4. Made law. 5. One belonging to another country ; a foreigner. 6. By getting Antonio to sign the bond, Shylock made an *indirect* attempt on his life, because to obtain his forfeit Antonio must die ; by wishing to take the pound of flesh he made a *direct* attempt on his life. 7. A dweller in a state or in a city : any townsman. 8. Person. 9. Plot. 10. Private. 11. A chest (for holding money) ; the exchequer. The "privy coffer" refers to that particular use which the laws stated the property of confiscated persons was to be applied to. 12. One who causes injury to another. 13. At.

Draw maps (A) Canada ; (B) Italy ; (C) South America.

Lesson 152.—Tuesday Morn. Geography. Write and Learn.

BRITISH POSSESSIONS IN N. AMERICA—CANADA.

(A). Nearly *half* the northern part of North America belongs to England. This possession is called **The Do-min'-i-on of Can'-a-da**. The whole country slopes towards the Arctic Ocean on the *north*, and the Atlantic on the *east*. In the *west* are the **Rocky Mountains**. The great physical features are the rivers and lakes. The largest rivers are the **Mack-en'-zie**, flowing into the *Arctic Ocean*, the **St. Law'-rence**, flowing into the *Atlantic*, and the **Fra'-ser**, flowing into the *Pacific*.

The St. Lawrence drains *five* large lakes—**L. Su-pe'-ri-or**, **L. Mich'-i-gan** (*mish'-ē-gān*), **L. Hu'-ron**, **L. E'-rie**, and **L. On-ta'-rio**. These lakes contain nearly half the fresh water of the globe. **L. Superior** is nearly as large as *Ireland*. Between Erie and Ontario are the Falls of Ni-ag'-a-ra.

EUROPE.—ITALY.—POLITICAL.

(B).—CLIMATE AND PRODUCTION.—The **soil** is exceedingly fertile, and the climate is the most delightful in Europe, being *warm* and generally *healthy*. **Agriculture** is the chief employment ; and the

[TURN OVER.

LESSON 152—Continued.

vine, olive, rice, maize, mulberry, and orange are cultivated. The only important manufacture is raw silk. Olive oil, sulphur (from Sicily), fruits, and silk are exported. Iron and marble are important minerals.

The GOVERNMENT is a **limited monarchy** under a king, and the RELIGION is **Roman Catholic**.

The people are very ignorant, especially in the south. Their language is very sweet sounding, and closely resembles Latin.

CHIEF TOWNS.—**Rome** (311,700), on the *Tiber*, the capital, is noted for magnificent ruins. **Na'-ples** is the largest city in Italy. **Flor'-ence**, on the *Arno*, is noted for paintings and sculpture. **Ven'-ice** is built on more than 100 islands in the Adriatic. **Gen'-oa** and **Leg'-horn** are important ports. **Tu'-rin**, on the *Po*, was the capital at one time. **Mil'-an** has a splendid cathedral, built of white marble; it is the centre of the Lombardy silk trade.

(C).—COUNTRIES OF SOUTH AMERICA.

Countries.	Capitals.	Rivers, &c., they stand on.
United States of Co- lom'-bi-a	BO-GO-TA'	In the Interior.
Ec'-ua-dor' (ék-wá-dór') ..	QUI'-TO (kí'-to)	" "
Ven'-ez'-ue'-la (vén-éz- wé'-lá)	CA-BA'-CAS (ká-rá'-kás) ..	Near the North Coast.
Gui'-a'-na (gee- á'-ná)	GEORGE'-TOWN	R. Dem-er-a'-ra.
	PA-BA'-MA'-RI-BO (á)	R. Su-rin-am'.
	CAY-ENNE' (kí-én')	R. Cay-enné.
Bra-zil'	RI'-O DE JAN-ÉI'-RO (ré'-o dā zhān-á'-ro)	Coast.
Pe'-ru (pé-roo')	LI'-MA (lí-má)	"
Bo-lí'-vi-a (bó-lí'-vé-á) ..	CHU-QUI-SA'-CA (tchoo- ki-sá'-ká)	In the Interior.
Chi'-li (chí-lí)	SAN-TI-A'-GO (sán-tí-á'- go)	At foot of Andes.
Ar'-gen-tine Republic.	BUE'-NOS AY'-RES (bó- nús á'-rés)	Rio de la Plata.
Pa-ra-guay' (pá-rá-gwá') ..	A-SUN-CI-ON' (ás-soon-sē- ón')	R. Paraguay.
U-ru-guay' (oo-roo-gwá') ..	MON'-TE VI'-DE-O (món- tá vé-dá-o)	Coast.
Pat-a-go'-ni-a	No towns.	

THE PLANETARY SYSTEM—(Continued).

(D).—What the Sun is made of. Astronomers, by careful examination, have found that a *great number* of the **metals** found on the earth exist in the sun, not in a **metallic state**, but as **vapour**. The gas **hydrogen** is there in great quantity, together with **so'dium**, **iron**, **copper**, **nickel**, **zinc**, and many other well-known elements.

[GO TO NEXT PAGE]

LESSON 152—Continued.

"The **photosphere** of the sun is of a *cloudy nature*, but while our clouds are made up of *particles of water*, the clouds on the sun must be composed of **particles of various metals**, and other substances, in a state of **intense heat**."

The sun then is an **immense star**, "bigger and brighter than the other stars, not because it is unlike them, but simply because it is so near to us and they are so far away."

The nearest fixed star (α Centauri, in the southern hemisphere) is 224 thousand times further from the earth than the sun is.

The Planets. There are **eight large planets** which *revolve round the sun* as their centre. They are all *cool, solid globes*, receiving their light and heat from the sun, and shining only by reflected light.

They have all *two motions*. (1) Each **rotates** or spins on its own axis; and (2) at the same time **revolves** round the sun. Both these motions are in one direction, from *west to east*.

The **path** of each planet round the sun, (or its **orbit** as it is called,) is not quite circular, but elongated or **oval**. The proper name for the figure is an **ellipse**.

In addition to the eight **primary** planets, a large group of small planets called **as'teroids**, or **minor planets**, also revolve round the sun. Up to the present time (January, 1884) 234 of these minor planets have been observed. The first one, called **Ce'res**, was discovered on the first day of the present century (January 1st, 1801).

Lesson 153.—Wednesday Morning. Work these Sums.

(1) A person sold £5,000 out of the $3\frac{1}{2}$ per cent stock at 110, and re-invested in the 4 per cents at $137\frac{1}{2}$; find the alteration in his income.

(2) By investing in the 3 per cents at 95, what rate per cent does a person receive for his capital?

(3) What would be the difference of income made by the transfer of £5,000 stock from the 3 per cents at 72 to the 4 per cents at 90?

(4) A grocer by retailing butter at 1s. 1 $\frac{1}{2}$ d. per lb. gains 12 per cent; what did it cost him per cwt.?

(5) Find by practice the cost of 2qr. 2lb. 12oz. 13dr. at £1 10s. per lb.

Latin Roots.—Learn and Write.

mitto = I send, or let go;	missus = sent.
missile , something thrown.	emissary , one sent.
admit , to let in.	demise , a letting go of life;
missionary , one sent out on a	death.
mission .	remit , to send back.
message , something sent.	intermittent , sending out at
transmit , to send across.	intervals.

Lesson 154.—Thursday Morn. Grammar. Write and Learn.

Ex. 1. *Analyse and Parse the words in italics.*

On either side the river lie
 Long fields of barley and of rye,
That clothe the wold and meet the sky,
And thro' the fields the road runs by
 To many-towerèd Camelot.—(Tennyson.)

Ex. 2. *Write all the forms that the Latin prefix "ad" takes, giving examples of words in which it is found.*

Ex. 3. *Break up these words into their component parts (prefix, stem, and affix), and give the meaning as shown by these parts:* Adjective, project, influence, affluence, superfluous, fraternal.

Latin Roots.—Learn and Write.

habeo = I have; **hābitus** = had; **hābito** = I dwell; **hābilis** = able.

ability, power, strength

enable, to make able

habit, custom

lex = a law; **lēgis** = of a law.

legal, according to law

illegal, not according to law

loyal (Fr.), faithful to the law

legitimate, according to law

inhabit, to dwell in

exhibit, to have in view, to show

prohibit, to forbid

lēgis = of a law.

legislature, the power that makes laws

privilege, a law in favour of a private person, a benefit

Lesson 155.—Friday Morning. Work these Sums.

(1) At what rate per cent will a person receive interest who invests his capital in the $3\frac{1}{2}$ per cents at 94?

(2) Find the difference in income caused by the transfer of £3,333 6s. 8d. money from the $3\frac{1}{2}$ per cents at 80 to the $4\frac{1}{2}$ per cents at 85.

(3) What rate per cent does a man obtain for his capital when he buys 5 per cent preference shares at 122?

(4) If an ordinary train going 36 miles an hour starts 24 minutes before an express train going 52 miles an hour, in what time will the latter overtake the former?

(5) In what time will the interest on £450 amount to £72 at 4 per cent per annum?

COMPOSITION.—You are supposed to have had a *good game at football* last Saturday. Give an **account** of the game so that I may understand how it is played. Or describe how you generally spend your Saturdays.

THIRTY-SECOND WEEK.

Lesson 156.—Monday Morning. Learn.

PSALM XXV., Verses 1—7 ; OR ELSE LEARN—

THE TRIAL SCENE—(Continued).

- Por.* In which predicament,¹ I say, thou stand'st :
 For it appears, by manifest proceeding,²
 That indirectly, and directly too,
 Thou hast contrived against the very life (245)
 Of the defendant :³ and thou hast incur'd⁴
 The danger formerly⁵ by me rehearsed.⁶
*Down,*⁷ therefore, and beg mercy of the duke.
- Duke* That thou shalt see the difference⁸ of our spirits,
 I pardon thee thy life, before thou ask it ; (250)
- Shy.* Nay, take my life and all ; pardon not that .⁹
 You take my house, when you do take the prop¹⁰
 That doth sustain my house ; you take my life,
 When you do take the means whereby I live.

1. Awkward condition. 2. Plainly by your course of action. 3. One who has to defend, or clear himself, in a court of justice (here Antonio). 4. Become liable to. 5. See above (lines 231—241). 6. Stated ; set forth. 7. Down on your knees. 8. The difference between your cruel feeling towards Antonio, and our wish to be just and merciful to you. 9. Do not spare my life. 10. Support.

Draw maps (A) Ireland ; (B) Spain and Portugal ; (C) South America.

Lesson 157.—Tuesday Morn. Geography. Write and Learn.

(A).—The climate of Canada is severe, but generally healthy. The chief productions are timber, furs, dried fish, and petroleum (rock oil).

The country is divided into eight prov'-in-ces ; the chief ones are

ON-TA'-RI-O	chief town	Ot-ta-wa.....	on R. Ottawa.
QUE-BEC'	" "	Que-bec'	" R. St. Lawrence.
NOVA SCOTIA	" "	Hal'-i-fax.....	" Coast.
NEW BRUNSWICK	" "	Fred'-er-ic-ton ..	" R. St. John.
BRITISH CO-LUM-BI-A ..	" "	Vic-to'-ri-a	" Van-cou'-ver Is.

Other important towns are Mon-tre-al' (môn-trê-awl') on the St. Lawrence, To-ron'-to on L. Ontario, New-West'-min-ster at the mouth of the R. Fraser, and Win'-ni-peg on Red River in MAN-I-TO'-BA.

EUROPE.—TURKEY AND GREECE.—PHYSICAL.

(B).—Turkey and Greece form the third large southern peninsula of Europe, called the Balkan Peninsula. Though separate kingdoms they may very conveniently be studied together.

[TURN OVER.

LESSON 157—Continued.

BOUNDARIES.—*North*, by **Ser'-vi-a** and **Rou-ma'-ni-a**; *west*, by the **Adriatic** and the **Ionian Sea**; *south*, by the **Mediterranean**; and *east*, by the **Ar-chi-pel'-a-go**, the **Dar-da-nelles**, the **Sea of Mar'-mo-ra**, the **Bos'-po-rus**, and the **Black Sea**.

GREECE lies to the *south* of Turkey. It has a very irregular coastline, and is nearly cut in two by the **Gulf of Le-pan'-to**. It is joined to the mainland by the **Isthmus of Cor'-inth**.

SURFACE.—In the *north-east* is a large plain, through which the **Danube** flows. The **Bal'-kan Mts.** run across the country from *east to west*. The **Pin'-dus Mts.** run *south* from them into Greece. Greece is covered with mountains and hills.

RIVERS.—The **Danube**, flowing into the **Black Sea**, is no longer a Turkish river. Its numerous tributaries on the right bank water the **PRINCIPALITY OF BUL-GA'-RI-A**, which is a tributary State of Turkey. The **Ma-rit'-za**, flowing into the **Æ-gæ-an Sea**, is the only important river. Greece has no important rivers.

SOUTH AMERICA.—BRAZIL.

(C).—**Bra-zil'** is an immense empire, nearly the size of Europe, occupying the greater part of S. America. The population is above 10 millions.

It is in part a great plain, sloping towards the Atlantic, and across which several ranges of low mountains run. It includes the district of the **Silvas**, the greater part of the basin of the **Amazon**, and the sources of the Rivers **Pa-ra'-na** and **Pa-ra-guay**.

The **climate** is *delightful*, almost continuous summer, and the **soil fertile**. It is exceedingly rich in mineral wealth, **gold**, **silver**, and **diamonds** being found in all parts, but especially in the uplands and in the sources and beds of the rivers. The vegetable productions are also very valuable, including **sugar**, **cotton**, **rice**, **coffee**, **maize**, **cocoa**, and **tobacco**. Horses and cattle are so abundant that they are often killed for their **hides** and **tallow**.

The government is a monarchy under an **Emperor**. The people are mostly Roman Catholics, and are little educated. They speak the **Portuguese** language. **Rio de Jan-ei'-ro** (*rê-o dă zhăn-ă-ro*), the capital, **Ba-hi'-a** (*bă-hě'-ă*) and **Per-nam-bu'-co** are all sea-ports. There are many other towns, but none of great importance.

THE PLANETARY SYSTEM—(Continued).

(D).—Commencing with the planet nearest the sun, the following is the order of their arrangement: **Mer'cury**, **Ve'nus**, the **Earth**, **Mars**, the **As'teroids**, **Ju'piter**, **Sat'urn**, **Ura'nus**, and **Nep'tune**.

All the planets, except **Uranus** and **Neptune** and the **Asteroids**, can be seen during the greater part of the year without the help of a telescope. Uranus and Ceres are occasionally visible to the naked eye.

Mercury, **Venus**, **Mars**, **Jupiter**, and **Saturn** were known to the ancients. Uranus was discovered in 1781, and Neptune in 1846.

[GO TO NEXT PAGE.]

LESSON 157—Continued.

The **Planets** can easily be distinguished from the **fixed stars** by two things :—

- (1) The planets **shine with a steady light**, whilst the stars **twinkle**.
- (2) The fixed stars all move together, going round the sky daily, but remain in the **same position with regard to one another**, whilst the planets change their position among the stars as well as move across the face of the sky. The ancients therefore called them planets or *wandering stars*, from the Greek *planētēs* = a wanderer.

The **Satellites** or **Moons**, yet discovered, number 20, namely, the Earth one, Mars two, Jupiter four, Saturn eight, Uranus four, and Neptune one.

Lesson 158.—Wednesday Morning. Work these Sums.

(1) How much per cent per annum shall I receive upon my capital if I invest it in a 3 per cent stock at 85?

(2) A man sells out of the $3\frac{1}{2}$ per cents at $93\frac{1}{2}$ and realises £18,700 : if he invest $\frac{1}{2}$ of the produce in the 4 per cents at 96, and the rest in the 3 per cents at 90, find the alteration in his income.

*(3) At what price must I purchase stock in the $3\frac{1}{2}$ per cents so as to get 4 per cent on my outlay?

(4) What decimal of a pound is '15625 of a guinea minus '625s.?

(5) If 8 men working $10\frac{1}{2}$ hours a day earn 14 guineas in 7 days, in how many days will 10 men working 9 hours a day earn £27?

Latin Roots.—Learn and Write.

moveo = I move; **motus** = moved.

move, to change place.

movable, that may be moved.

motion, art of moving.

motive, causing movement.

remove, to move out of place.

commotion, a violent movement.

emotion, a moving of the feelings.

remote, moved to a distance.

moment, the smallest period of time in which a movement can be made.

Lesson 159.—Thursday Morn. Grammar. Write and Learn.

Ex. 1. *Analyse and Parse the words in italics.*

I know a counsellor and secretary, *that* never came to Queen Elizabeth of England with bills to sign, *but* he would *always* first put her into some discourse of State, *that she might the less mind the bills.*—(Bacon on "Cunning.")

Ex. 2. *Correct these sentences, and show why they are wrong:* He has a thirst of knowledge. He made the discovery and communicated it *with* his friends. You should entrust this to persons *on* whom you can confide.

LESSON 159—Continued.

Ex. 3. Give the meaning of these prefixes, say what language they belong to, and give two examples of words in which each is used: Be, amphi, trans, fore, cata, pro.

Latin Roots.—Learn and Write.

jungo = I join; junctus = joined.	
joint, the place where things are joined	adjunct, the thing joined, or added to
joiner, one who joins	rejoinder, an answer joined to another
junction, the act of joining	
conjunction, that which joins	
lux = light; lūcis = of light; lūmen = light; lūminis = of light.	
lucifer, a light bearer	luminary, a light giver
lucid, full of light; clear; easy to understand	illumine, to make light
elucidate, to explain	pellucid, able to be seen through; transparent.

Lesson 160.—Friday Morning. Work these Sums.

(1) What rate of interest is being earned by capital invested in the 4 per cents at 120?

(2) A person invests £5,460 in the 3 per cents at 91; he sells out £2,000 stock when they have risen to 93½, and the rest when they have fallen to 85; he then invests the produce in the 4½ per cents at 102. What is the difference in his income?

*(3) If the 4 per cents are at 95, what rate per cent per annum do I get for my money?

(4) Find the present worth and discount of £4,492 2s. 6d., due at the end of 3½ years, at 6 per cent.

(5) Find the value of $\frac{5\frac{1}{4} - 4\frac{2}{3}}{4\frac{3}{8} + 8\frac{1}{8}}$ of 58

COMPOSITION.—Write the life of any man or woman whom we may set before us as an example of courage and perseverance over difficulties.

THIRTY-THIRD WEEK.

Lesson 161.—Monday Morning. Learn.

PSALM XXV., Verses 8—15; OR ELSE LEARN—

THE TRIAL SCENE—(Continued).

Por.	What mercy can you render him, ¹ Antonio?	(255)
Ant.	So please ² my lord the duke, and all the court, To quit ³ the fine for one half of his goods, I am content; ⁴ so he ⁵ will let me have The other half in use ⁶ —to render it, Upon his death, unto the gentleman	(260)

[GO TO NEXT PAGE.]

LESSON 161—Continued.

That lately stole his daughter :

Two things provided more—That for his favour,

He *presently*⁸ become a Christian ;

The other, that he do *record a gift*,⁹

Here in the court, of all he dies *possess'd*,¹⁰ (265)

Unto his *son*¹¹ Lorenzo, and his daughter.

1. Show him ; give him. 2. If it please. 3. To remit, to give up. 4. Contented, satisfied. 5. If he. 6. In trust. Lent on interest. 7. Subject to two more conditions. 8. At once. 9. Write out a "deed of gift." 10. Of all (which) he dies possessed. 11. His son-in-law, who had run away with and married his daughter (line 261).

Draw maps (A) Australia ; (B) Russia ; (C) East Indies.

Lesson 162.—Tuesday Morn. Geography. Write and Learn.

OTHER POSSESSIONS IN AMERICA.

(A)—**New-found-land** is an island larger than Ireland. A great part of it is barren and rocky. The climate is severe. It is chiefly used as a fishing station by the English, French, and Americans.

Dried cod, cod-liver oil, seal-oil, and seal-skins are exported.

The "**Great Bank**," 600 miles long and 200 broad, in the Atlantic, to the south, is the most important *fishing ground* in the world.

The two **Atlantic Telegraph Cables**, from Valentia I., in Ireland, have their *termini* at Trinity Bay.

The **Ber-mu-das**, or **So-mer's Islands**, are a cluster of 300 islands in the Atlantic. They are used as a *harbour of refuge* and a *coaling station*.

Hon-du-ras, in Central America, is a small possession exporting **mahogany, logwood, and cochineal**. The capital is **Be-lize** (*bä-leez*), on the *R. Belize*.

British Gui-a-na (*gee-d'-nä*), on the *north-east* coast of South America, is a fertile tract of well-watered country. It yields **sugar, coffee, and timber** of various kinds. The capital is **Georgetown**, at the mouth of the *R. Dem-er-a-ra*.

EUROPE.—TURKEY AND GREECE.—POLITICAL.

(B).—CLIMATE AND PRODUCTIONS.—*North* of the Balkan the climate is cold and often severe ; in the *south* it is warm and delightful. The soil is fertile, but agriculture, manufactures, and commerce are neglected. **Wheat** is grown in large quantities in the plains of the Danube in the *north-east*. There are large forests in various parts of the country.

The GOVERNMENT of Turkey is an absolute monarchy, under a Sultan. The population is about 5½ millions. The Turks are

[TURN OVER.

LESSON 162—(Continued).

Mahommedans, but the greater part of the people, who belong to other nations, are members of the **Greek Church**. Greece enjoys a **limited monarchy** under a king.

CHIEF TOWNS.—**TURKEY.**—**Con-stan-ti-no'-ple** (1,075,000), on the *Bosporus*, is the capital; it looks a beautiful city from the sea, but is very dirty. **A-dri-an-o'-ple**, on the *Maritza*, is the second city. **Sa-lon-i'-ka** (*sāl-o-nē'-kă*) is the chief port.

GREECE.—**Athens** (63,000), the capital, stands on the *Gulf of A-gi'-na*. **Pa-tras** and **Cor'-inth** export currants. The population of Greece is nearly two millions, and the area of the country not quite three times that of Wales.

The **KINGDOMS OF SER-VI'-A** (capital, **Bel'-grade**, on the *Danube*) and **ROU-MA'-NI-A** (capital, **Bu'-char-est**, on the *Dum-bo-vit'-za*), together with the **PRINCIPALITY OF MON'-TE-NE'-GRO** (capital, **Cet-igne'**) (*cēt-ēen'*), belonged to Turkey before the war with Russia in 1878. They are now independent.

BOSNIA, a former province of Turkey, is now governed by Austria.

SOUTH AMERICAN REPUBLICS.

(C).—The three republics of **Co-lom'-bi-a**, **Ec-na-dor'**, and **Ven-ez-ue'-la** were formerly part of the Spanish possessions in South America.

Tobacco, **quinine**, **peruvian bark**, and **hides** are exported. The religion is Roman Catholic. There are few manufactures. The *llanos* cover the greater part of Venezuela.

Gui-a'-na (*gē-d'-nā*) includes all that region of South America extending from the mouth of the *Orinoco* to the estuary of the *Amazon*. Part of Guiana belongs to England, and the remainder to France and Holland.

The coast is low, marshy, and unhealthy. There are dense forests in the interior, and the soil is fertile. **Sugar**, **rum**, **molasses**, and **timber** are the exports.

Pe-ru' and **Bo-li'-vi-a** are republics, situated on the *west* of the continent. They are very mountainous, the double chain of the *Andes* passing through them.

Like Brazil, *Peru* and *Bolivia* are noted for **silver** mines. The **Lla'-ma**, an animal like a goat, but of the camel species, is used as a beast of burden in the countries bordering on the *Andes*.

Chi'-li is a republic consisting of a long narrow strip of land between the *Andes* and the *Pacific*.

There are no navigable rivers. Earthquakes are frequent. The **copper** mines are very valuable.

The **Ar-gen-tine Republic** lies to the *south* of Brazil.

The great wealth of the country consists in immense herds of **cattle**, **horses**, and **sheep**. **Horns**, **horse-hair**, **wool**, and **hides** are the chief exports.

LESSON 162—Continued.

THE PLANETARY SYSTEM—(Continued).

(D).—Comparative Sizes and Distances of the Planets, &c.

PLANETS, &c.	OBJECT TO REPRESENT IT.	REPRESENTATION OF ITS DISTANCE FROM SUN.
Sun	A globe 4ft. diameter.	
1 Mercury	A grain of mustard seed ..	164 feet.
2 Venus	A small pea	284 feet.
3 Earth	A pea	490 feet.
4 Mars	A large pin's head	654 feet.
The Asteroids ..	Grains of sand	1,000 to 1,200 feet.
5 Jupiter	A moderate-sized orange ..	$\frac{1}{2}$ mile.
6 Saturn	A small orange	$\frac{1}{2}$ mile.
7 Uranus	A full-sized cherry	$1\frac{1}{2}$ miles.
8 Neptune	A good-sized plum	$2\frac{1}{2}$ miles.
Nearest Fixed Star		18,000 miles.

Mercury and **Venus** are called *inferior* planets, because their orbits are **within** that of the earth, all the remainder are called *superior* planets because their orbits are **outside** that of the earth.

Lesson 163.—Wednesday Morning. Work these Sums.

- (1) What is the brokerage on £426 16s. at $\frac{1}{2}$ per cent?
- (2) If a tea merchant buys tea at 3s. 4d. per lb. and sells it at 4s. per lb., what is his gain per cent?
- (3) What shall I have to pay for £2,775 out of the 3 per cent stock at $99\frac{1}{2}$, the broker charging $\frac{1}{2}$ per cent?
- (4) If a tradesman gains 20 per cent by selling goods for £180, what is the prime cost?
- (5) A father left £5,707 10s. to be divided between his two sons James and John, in the ratio of $5\frac{1}{2} : 6\frac{1}{2}$. What were their respective shares?

Latin Roots.—Learn and Write.

plico = I fold; *plicatus* = folded.

<i>pliable</i> , easily bent.	<i>simple</i> , folded once; clear.
<i>apply</i> , to fold upon; to employ.	<i>double</i> , folded twice.
<i>comply</i> , to bend to the wishes of another; to agree.	<i>treble</i> , folded thrice.
<i>complicated</i> , folded many times; difficult.	<i>multiple</i> , folded many times.
	<i>multiply</i> , to fold many times; to increase.

Lesson 164.—Thursday Morn. Grammar. Write and Learn.

Ex. 1. *Analyse and Parse the words in italics.*

Now, my co-mates, and brothers in exile,
Hath not old custom made this life more sweet
Than that of painted pomp? are not these woods
 More free from peril *than* the envious court?—(Shakespeare.)

Ex. 2. *Give the meaning of these prefixes, say what language they belong to, and give two examples of words in which each is used:*
 Over, pre, post, hypo, epi, mis.

Ex. 3. *Form nouns denoting the "agent or doer of a thing" by adding suitable affixes:* School, occupy, assail, drunk, trust, patent.

Latin Roots.—Learn and Write.

lêgo = I gather, I read; **legens, legentis** = gathering, reading;
lectus = gathered, read.

<i>legend</i> , something to be read; a traditional story	<i>legible</i> , easy to read
<i>legion</i> , a body of about 5,000 chosen men	<i>elegant</i> , chosen; beautiful
<i>diligent</i> , gathered together; attentive	<i>lecture</i> , a discourse
mānus = the hand.	<i>elector</i> , one who chooses
<i>manacles</i> , chains for the hand	<i>neglect</i> , to omit
<i>manual</i> , something made or used by the hand; a text-book	<i>select</i> , to choose
<i>manage</i> , to govern with the hand; to control	<i>manufacture</i> , to make by the hand
	<i>manure</i> , to cultivate by hand
	labour; to dress the land
	<i>manuscript</i> , something written by hand

Lesson 165. Friday Morning. Work these Sums.

(1) What is the prime cost, when a tradesman loses $16\frac{2}{3}$ per cent by selling goods for £150?

(2) Find the cost of £2,353 three per cent consuls at $90\frac{3}{4}$, brokerage being $\frac{1}{8}$ per cent.

(3) If I buy an article for 16s. and sell it for £1, what is my gain per cent?

(4) Find the quantity of stock purchased by investing £2,353 in the 3 per cents at $90\frac{3}{4}$, brokerage $\frac{1}{8}$ per cent.

(5) A dealer by selling a horse for £32 loses 4 per cent; what percentage would he have gained by selling it at £40?

COMPOSITION.—“*The earth is round like an orange.*” Give all the reasons you know for believing that this is a correct statement. What fact shows you the earth is not flat?

THIRTY-FOURTH WEEK

Lesson 166.—Monday Morning. Learn.

PSALM XXV., Verses 16—22 ; OR ELSE LEARN—

THE TRIAL SCENE—(Continued).

- Duke.* He shall do this ; or else I do *recant*¹
The pardon that I *late*² pronounced here.
- Por.* Art thou contented, Jew ? what dost thou say ?
- Shy.* I am content.
- Por.* Clerk, *draw*³ a deed of gift. (270)
- Shy.* I pray you, give me leave to go from *hence* ;⁴
I am not well ; send the deed after me,
And I will sign it.

Duke. Get thee gone, but do it.

1. To call back, revoke. To recall something said before. 2. Lately ; a short time since. 3. Draw up, write out. 4. From this place.

When the trial is over BASSANIO and ANTONIO hasten to see PORTIA and NERISSA. The ladies explain to them their clever scheme, and tease them because they did not discover the deception which had been so successful. PORTIA tells ANTONIO that his ships, reported to be wrecked, have returned safely. LORENZO receives from NERISSA the "deed of gift" signed by the Jew, and all ends happily.

WILLIAM SHAKESPEARE, the greatest poet of England, and perhaps of the world, was born at Stratford-on-Avon, in Warwickshire, 1564 (Elizabeth). He went to London, about 1583, found employment in one of the theatres, and at last became a manager of the "Globe Theatre," at Southwark (a part of London). In 1612 he returned to Stratford, having become a wealthy man, and died there on his birthday, April 23, 1616, aged 52 (James I.). He wrote thirty-seven plays, two poems, and a number of sonnets. His best plays are *Hamlet*, *Macbeth*, *Othello*, *The Tempest*, *King Lear*, *King John*, *Henry VIII.*, *Merchant of Venice*, &c.

Lesson 167.—Tuesday Morn. Geography. Write and Learn.

AUSTRALIA.

(A).—Aus-tra'-li-a, with New Zea'-land and the islands round about, is called AUS-TRAL-A'-SIA.*

Australia is nearly as large as **EUROPE**, and is the largest island in the world. It has the **Indian Ocean** on the *north* and *west*, the **Southern Ocean** on the *south*, and the **Pacific Ocean** on the *east*.

The mountains run round the coast as in Africa. The highest are in the *south-east*, and are called the **Australian Alps**. The *interior* and *western* parts of the country consist of low hills and desert plains, with salt-marshes. The *eastern* portion is a rich grazing country, upon which millions of sheep are reared.

There are numerous bays and gulfs round the coast, and a great many small rivers flow into them. The only important river is the **Mur'-ray**, which flows into the **Southern Ocean**.

* Australasia = Southern Asia, Australia = Southern Land.

LESSON 167—Continued.

EUROPE.—RUSSIA.—PHYSICAL.

(B).—RUSSIA is the largest country in Europe; it extends over more than half the continent, and, except the British and the Chinese empires, is the largest empire in the world.

BOUNDARIES.—*North*, by the **Arctic Ocean**; *east*, by the **Ural Mts.**, the **R. Ural**, and the **Cas'-pi-an Sea**; *south*, by **Mt. Cau'-ca-sus** and the **Black Sea**; and *west*, by **Sweden**, the **Baltic Sea**, **Germany**, **Austria**, and **Rou-ma'-ni-a**.

SURFACE.—Mostly flat, forming part of the **Great Plain**. The chief mountains form the Boundaries. The extreme *north* is either marshy or barren. In the *south-east* are the dry, barren **Steppes** (*steps*), and in the *south-west* is an extremely fertile tract.

RIVERS.—The **Pet-cho'-ra** (*pět-shō'-ră*) flowing into the **Arctic Ocean**, the **Dwi'-na** into the **White Sea**, the **Ne'-va** into the **Gulf of Finland**, the **Dü'-na** into the **Gulf of Riga**, the **Dnie'-per** and **Dnies'-ter** into the **Black Sea**, the **Don** into the **Sea of Azof**, and the **Volga** and the **Ural** into the **Caspian Sea**.

The **Volga** is the largest river in Europe. It rises in the **Val-dai'** (*völ-dä'*) **Hills**, and has a course of 2,200 miles. The **Neva** carries away the waters of **Lake La-do'-ga** and **Lake O-ne'-ga**.

THE EAST INDIAN ISLANDS.

(C).—The **East Indies**, or **Ma-lay' Ar-chi-pel'-a-go**, includes all the islands in the **Eastern Sea**, *north* and *west* of **Australia**, and extending along the eastern and southern shores of **Asia**. The chief ones are—**Bor'-ne-o**, **Su-ma'-tra**, **Ja'-va** (*jă'-vă*), **Cel'-e-bes** (*sel'-e-bēs*), the **Mo-luc'-cas**, the **Phil'-ip-pine** (*fil'-ip-īn*) **I.**, and **Pap'-u-a** or **New Guinea**, with many smaller ones.

Most of the islands are occupied by natives of Malay origin, and by the **Dutch** and **Spanish**. They are mountainous, and contain numerous active volcanoes, especially in **Java**. Many of the smaller islands are of **coral** formation.

They are all exceedingly fertile, and yield varieties of spices, as **nutmeg**, **mace**, **cinnamon**, **cloves**, **pepper**, and **pimento** or **allspice**. All these things, together with **camphor** and **gutta-percha**, are exported.

Bor'-ne-o is one of the largest and most beautiful islands in the world. The town of **Sa-ra-wak'** (*ă*), on the *west* coast, and the island of **La-bu-an'**, off the *north-west* coast, belong to **Britain**.

Su-ma'-tra has valuable tin mines.

Ja'-va is very fertile and thickly populated. A range of high mountains runs through it containing many volcanoes.

Borneo, **Sumatra**, and **Java** belong to the **Dutch**. We know little about **New Guinea**. The government of **Queensland** (**Australia**) has taken possession of all that part of the island "lying between the 141st and 155th meridian of east longitude." (April, 1883).

LESSON 167—Continued.

THE PLANETARY SYSTEM—(Continued).

(D).—**Mercury.** Little is known about this planet. It has a diameter about one-third that of the earth. It always appears to us near the sun. "When it is on our *left* of the sun it apparently follows the sun on its daily course, and sets just after it; when on the other side it precedes the sun, and therefore sets before it, and so it is only seen in the morning when it rises just before the sun." When watched with a telescope, Mercury goes through the same changes as the moon does.

Venus. The heavenly body next to the sun and moon in brightness is the planet Venus. It keeps by the sun, and is seen to change its appearance like our moon (when looked at with a telescope). When it rises *before* the sun it is called the **Morning star** (or **Lu'cifer**), and when it sets *after* the sun the **Evening star** (or **Hes'perus**).

Venus is nearly as large as the earth; it turns on its axis once in $23\frac{1}{2}$ hours, and revolves round the sun in a year of 224 days.

Mars. The planet Mars is much smaller than the earth, and and is easily known by its very **red light**. It is very much like our earth, and it appears to us as our earth would appear to its inhabitants (if it has any). **Land and water** have been noticed on its surface, and round the poles are *white patches* which are probably **snow**. It has an **atmosphere**, **clouds**, and **mist**. The land is generally *reddish*, and the water has a *greenish* tinge.

Its **day** is $24\frac{1}{2}$ hours long, and its **year** consists of 686 days.

Lesson 168.—Wednesday Morning. Work these Sums.

(1) Bought 9cwt. of cheese at £2 12s. per cwt., and sold it at £2 18s. per cwt. What was the gain upon the whole?

*(2) What income is derived from investing £1,227 in the $3\frac{1}{2}$ per cents at $102\frac{1}{2}$, brokerage $\frac{1}{2}$.

(3) If by selling wine at 17s. 5d. a gallon, I lose 5 per cent, at what price per gallon must I sell it to gain 15 per cent?

*(4) What will be the clear annual income derived from investing £6,050 in the 3 per cents at $90\frac{3}{4}$, after deducting an income tax of 4d. in the pound?

(5) What amount of stock at $84\frac{1}{2}$ may be bought for £1,878 13s. 6d., the usual brokerage to be paid?

Latin Roots.—Learn and Write.

pono = I place; **positus** = placed.

post, a fixed place.

deposit, to put down.

impose, to lay on.

oppose, to place against.

postpone, to put off.

compose, to place together.

depose, to place down.

dispose, to place in order.

expose, to place open.

position, place.

Lesson 169.—Thursday Morn. Grammar. Write and Learn.

Ex. 1. *Analyse and Parse the words in italics.*

Adam, the *while*
Waiting desirous her return, had wove,
 Of choicest flowers, a *garland* to adorn
Her tresses, and her rural labours crown,
 As reapers oft are wont their harvest queen.—(Milton.)

Ex. 2. *Break up these words into their component parts (prefix, stem, and affix), and give their meaning as shown by these parts:* Education, conductor; facility, affection; transfer, differ.

Ex. 3. *Form nouns denoting "state of being, quality, or order," by adding suitable affixes:* Accurate, bad, continue, wise, patient, boy.

Latin Roots.—Learn and Write.

māre = the sea.

<i>mariner</i> , a seaman, a sailor	<i>admiral</i> , the commander of a fleet
<i>marine</i> , belonging to the sea	<i>submarine</i> , under the sea
<i>maritime</i> , relating to the sea	<i>transmarine</i> , beyond the sea

mēreo=I earn, I deserve; **mēritus**, earned, deserved; **merx**, goods; **mercis**=of goods.

<i>merit</i> , worthy of remark	<i>mercery</i> , silk goods
<i>mercy</i> , kindness deserved	<i>commerce</i> , interchange of goods
<i>merchandise</i> , goods	<i>commercial</i> , relating to trade

Lesson 170.—Friday Morning. Work these Sums.

* (1) How much must I invest in the $3\frac{1}{2}$ per cents at 91, so as to have an annual income of £932, after deducting an income tax of 7d. in the £?

(2) If 375 yards of silk be sold for £490, and 20 per cent profit be made, what did it cost per yard?

* (3) What must be the selling price of 3 per cent consols, so that after deducting an income tax of 6d. in the pound it may yield $3\frac{1}{2}$ per cent interest on my outlay?

(4) If by selling coffee at 1s. 7d. per lb., I lose 5 per cent, what must I sell it at to gain 5 per cent?

(5) A man lends £100 at 5 per cent, £200 at $4\frac{1}{2}$ per cent, and £300 at $3\frac{1}{2}$ per cent; what is the average percentage of interest that he gets for his money?

COMPOSITION.—“*A rolling stone gathers no moss.*” Write an **essay** on this proverb; explain its meaning and apply it to our everyday occupations and employments.

THIRTY-FIFTH WEEK.

Lesson 171.—Monday Morning. Learn.

1 CORINTHIANS XV., Verses 1—8; OR ELSE LEARN—

SONG—FROM COMUS.¹ (*Milton.*)Sweet *Echo*,² sweetest nymph, that liv'st unseenWithin thy *airy shell*,³By slow *Me-an'-der's*⁴ margin *green*;⁵And in the violet embroidered *vale*,⁶Where the *love-lorn*⁷ *nightingale*⁸Nightly to thee her sad *song*⁹ mourneth well:Canst thou not tell me of a gentle *pair*¹⁰That liketh thy *Narcissus*¹¹ are?

O if thou have

Hid *them*¹² in some flowery cave,

Tell me but where,

Sweet queen of *parley*,¹³ daughter of the *sphere*;¹⁴So may'st thou be *translated*¹⁵ to the skies,And find resounding *grace*¹⁶ to all Heaven's harmonies.

1. Comus was, among the later Romans, the god of festive joy and mirth. The "Comus" of Milton is a sort of theatrical entertainment. Some parts of the poetry are very beautiful, this song being especially fine. 2. The Romans say that Echo was a nymph (a young and beautiful maiden) who fell in love with Nar-cis'-sus. As her love was not returned she pined away in grief until nothing but her voice remained. 3. The "airy shell" is the hemisphere or firmament of air. 4. The *Me-an'-der* is a river in Asia Minor noted for its winding course. 5. The green margin or bank of the river. 6. The valley made beautiful with violets growing all over it. 7. *Lorn* is an old form of lost. *Love-lorn*=forsaken by the one who is loved. 8. The name nightingale means the night-singer. The male bird sings while the female is hatching her eggs. When the brood is hatched his song ceases. The bird is unknown in Scotland and Ireland, and is rarely heard as far north as York. 9. Virgil, the great Roman poet, says "The nightingale lamenting beneath the poplar shades mourns her lost young, whom the ruthless churl has marked, and dragged the fledgelings from her nest; but she weeps all night, and perched upon a bough still renews her piteous strain, and fills the regions all around with sorrowful lamentations." (*Georgics*, IV. 511—515.) 10. *Gentle* means well or nobly born. 11. See Note 2,=that are most like thy Narcissus and thyself. 12. "The gentle pair." 13. *Parley* is speaking with another, hence very applicable to the echo. 14. "Echo is supposed here to have her origin from the reverberation of the music of the spheres." The "music or harmony of the spheres" is music imperceptible to human ears, produced by the movements of the heavenly bodies. (See *Merchant of Venice*, Act V. scene 1, 60-63.) 15. Removed. 16. The grace or beauty which results from repetition.

Draw maps (A) *Australia*; (B) *Russia*; (C) *New Zealand*.

Lesson 172.—Tuesday Morn. Geography. Write and Learn.

AUSTRALIA.

(A).—The *northern* part of Australia is hot. The *south* is dry and temperate, and very healthy. The soil is fertile. Few animals or plants *belong* to Australia that are useful to man.

[TURN OVER.]

LESSON 172—Continued.

Gold, copper, and lead, iron, tin, and coal are all found, especially in the *south-east*. There are splendid pastures. The grasses, fruits, plants, trees, and domestic animals of Europe all flourish abundantly.

Australia is divided into five colonies, viz. :—

NEW SOUTH WALES ...	Capital	Syd'-ney	<i>On Port Jackson.</i>
VICTORIA.....	„	Mel'-bourne ... „	<i>Port Philip.</i>
SOUTH AUSTRALIA.....	„	Ad'-el-aide	„ <i>R. Torrens.*</i>
QUEENSLAND	„	Bris'-bane	„ <i>R. Brisbane.</i>
WESTERN AUSTRALIA...	„	Perth	„ <i>Swan R.</i>

Tas-ma'-ni-a is an island, almost as large as *Scotland*. It lies to the south of *Australia*. The capital is **Hob'-art**,† on the *R. Derwent*.

Wool, hides, tallow, and meat are exported, wool, of excellent quality, being the chief produce.

EUROPE.—RUSSIA.—POLITICAL.

(B).—CLIMATE AND PRODUCTIONS.—The climate is very various, and is subject to extremes. The *north* is cold, and the winters are *severe*. In the *centre* and *south* the heat of summer is unbearable, and the cold of winter intense.

Rye, wheat, flax, hemp, and tobacco are largely grown, and great numbers of **sheep and cattle** are bred in the *south*. The mineral wealth is great, **gold** being obtained from the *Urals*, and **iron** in all parts. The forests, which cover two-fifths of the country, are very valuable.

MANUFACTURES.—These are not of much importance, but they include **leather, sailcloth, cordage, linen, and spirits**.

The COMMERCE is very great, much of it being with England. The *internal* trade is carried on at “**fairs**,” the chief being that of **Nij'-ni (nizh'-nē) Nov'-go-rod**.

The GOVERNMENT is an **absolute monarchy**, under an **Emperor** or “**Czar**.” The RELIGION is that of the **Greek Church**, but all forms are tolerated. The population is nearly 86 millions.

The people belong to many nations, and are the worst educated of any in Europe.

* The *Torrens* is a small river running into *St. Vincent Gulf*. **Port Adelaide** at its mouth is the port for **Adelaide**, which is 8 miles up the river. † Not now called Hobart Town.

LESSON 172—Continued.

POLYNESIA.

(C).—**Poly-ne'-sia** (= many islands) is the name given to the innumerable islands situated in the *tropical region* of the **Pacific**.

They form a number of groups, situated both *north* and *south* of the Equator. Some are of coral formation, and others are volcanic.

Most of the inhabitants are Malays, and are uncivilised and pagan.

NORTH OF THE EQUATOR are the **Bo-nin' Is.**, belonging to *Japan*, the **Lad-rones' (lād-rōnz')** and the **Caroline Is.**, belonging to *Spain*.

The **Sandwich Is.** are a numerous well-cultivated group, having a settled government under a king. They form the **KINGDOM OF HA-WAI'-I (hā-wī'-ē)**. **Ha-wai'-i**, or **O-why'-ee (ō-whī'-ē)**, the chief of the group, is the largest island in Polynesia. It is mostly composed of lava, and contains the most remarkable volcano in the world, **Mau'-na Lo'-a**. **Ho-no-lu'-lu (17,000)**, on the island of **Oa-hu' (wā-hoo' or ō-ā-hoo')**, is the chief town.

SOUTH OF THE EQUATOR are **New Cal-e-do'-ni-a** belonging to *France*, and **New Guin'-ea**, the largest island in Polynesia.

The **Fi'-ji (fē'-jē) Is.** belong to England. *Cocoa-nut* oil and *cotton* are exported.

The **So-ci'-e-ty Is.** are the most important group in this part of the Pacific. They are of *coral* formation.

All these islands have a beautiful climate. The productions are *bread-fruit*, *cocoa-nuts*, *plantains*, and *ba-na'-nas*. Hogs and rats are the chief quadrupeds.

THE PLANETARY SYSTEM—(Continued).

(D).—**Jupiter**. Next to Venus this is the **brightest** of the planets; it is also the **largest** of them. It is covered with **clouds**, and is probably either in a **liquid** or a **gaseous (gā'-zē-ūs)** state. Its **day** is 12 hours long, and it revolves round the sun in a **year** of 4,333 days. *Four moons* revolve round it.

Saturn. This planet ranks next to Jupiter in size. *Eight moons* revolve round it, and an immense **bright ring** surrounds it. Its **day** is 10½ hours long, and it takes nearly 30 of our years to revolve round the sun. **The ring**, which is the great peculiarity of the planet, consists of at least *four separate rings*, one inside the other. "It is thought that the rings represent a vast assemblage of **small satellites** or moons revolving round it."

Uranus is barely visible to the keenest eye on the clearest night. On account of its **immense distance** little is known about it. Its **day** is 9½ hours long, and it takes 84 of our years for it to revolve round the sun. *Four moons* revolve round it.

Neptune. This is the most distant of the planets, and cannot be seen without a powerful telescope. It takes about 160 years to go round the sun. The **sun**, seen from Uranus and Neptune, will only appear as a *bright star*.

[TURN OVER.

LESSON 172—Continued.

The Fixed Stars. These are **distant suns**, and there is reason to suppose that many of them are several hundred times larger than our sun.

On a clear night there are about 3,000 stars visible at once to the naked eye, from the *first* to the *sixth* magnitude.

By **magnitude** is meant *brightness*, not *size*, the brightest being said to be of the *first magnitude*. Stars of the 15th and 16th magnitude can only be seen by the most powerful telescopes.

Lesson 173.—Wednesday Morning. Work these Sums.

(1) If a mixture is made of 1 gallon of ale at 5d. a gallon, 3 at 9d., 4 at 12d., and 12 at 14d., what gain per cent shall I make by selling this mixture at 16d. a gallon?

* (2) Find the simple interest upon £41 13s. 4d. for 8 months at $4\frac{1}{2}$ per cent.

* (3) If 8 men reap a field of 6 acres in 3 days, in how many days will 6 men reap a field of 9 acres?

(4) What sum of money will amount to £609 3s. 4d. in $2\frac{1}{2}$ years at 3 per cent per annum, simple interest?

(5) How long will it take to travel 30°23'75" miles at the rate of 8°85' miles per hour?

Latin Roots.—Learn and Write.

porto = I carry; **portans, portantis** = carrying; **portatus** = carried.

porter, a carrier.

portable, easy to be carried.

export, to carry away, or out.

import, to bring in.

report, to bring back an answer.

support, to bear up.

transport, to carry across.

portfolio, a case for carrying loose papers.

portmanteau, a box for carrying clothes in.

Lesson 174.—Thursday Morn. Grammar. Write and Learn.

Ex. 1. *Analyse and Parse the words in italics.*

Stern *daughter* of the voice of God,

O Duty! if *that* name thou *love*.

Who *art* a *light* to guide, a rod

To check the *erring* and *reprove*;

Thou who *art* *victory* and *law*

When empty terrors *overawe*.

(Wordsworth.—Ode to Duty.)

Ex. 2. *Break up these words into their component parts (prefix, stem, and affix), and give the meaning as shown by these parts:* Forcible, circumference, declare, excursion, secrete, ductile.

Ex. 3. *Form nouns denoting "state of being, quality, or order," by adding suitable affixes:* Marry, loud, careful, slave, agree, banish.

[GO TO NEXT PAGE.]

LESSON 174—Continued.

Latin Roots.—Learn and Write.

mors=death; mortis=of death.

mortal, liable to death

immortal, not liable to death

mortify, to make dead; to destroy

mortuary, a place for the dead

nāvis = a ship.

navy, a fleet of ships

naval, relating to ships

navigate, to sail ships

navigator, one who sails a ship

mortgage, a death pledge; a con-

veyance of property or security

for a debt

post mortem, after death

nautical, sea-faring

nausea, sea sickness; sickness

generally

Lesson 175.—Friday Morning. Work these Sums.

*(1) What is the present value of £240, due two years hence, at $3\frac{1}{2}$ per cent?

(2) Four legatees of an estate get $\cdot\dot{3}$, $\cdot 3$, $\cdot 03$, $\cdot 0\dot{3}$ of it respectively, and a fifth gets the remainder, amounting to £91,000. What sum is received by each, and also on the average?

*(3) By selling nuts at 5d. per lb. a loss of 20 per cent results. At what price must they be sold so as to gain 20 per cent?

*(4) If 6 bars of iron 4 feet long, 3in. broad, and 2in. thick weigh 288lb., how much will 15 bars weigh, each 6ft. long, 4in. broad, and 3in. thick?

(5) What principal will, in 3 years at $6\frac{1}{2}$ per cent, produce £63 interest?

COMPOSITION.—Describe the country in which you live. Give its size, position, chief towns, and important productions or manufactures.

THIRTY-SIXTH WEEK.

Lesson 176.—Monday Morning. Learn.

1 CORINTHIANS XV., Verses 9—15; OR ELSE LEARN—

SONNET.—ON THE LATE MASSACRE IN PIEDMONT.¹ (Milton.)

Avenge,² O Lord! Thy slaughtered saints, whose bones

Lie scattered on the Alpine mountains cold;

Even *them*³ who kept Thy truth so pure of old,

When all our fathers worshipped *stocks and stones*,⁴

Forget not: in Thy book record their groans

Who were Thy sheep, and in their ancient fold

Slain by the bloody Piedmontese that rolled

Mother with infant down the *rocks*.⁵ Their moans

The vales *redoubled*⁶ to the hills, and *they*⁷

To Heaven. Their martyred blood and ashes *sow*⁸

O'er all the Italian fields, where still doth sway

The triple *tyrant*:⁹ that from *these*¹⁰ may grow

A hundred-fold, who, having learnt Thy way,

Early may *fly*¹¹ the Babylonian *woe*.¹²

[TURN OVER.]

LESSON 176—Continued.

1. In 1655 the Duke of Savoy endeavoured to compel his Protestant subjects in Piedmont (now part of the north-west of Italy) to become Roman Catholics. Those who refused to obey his orders were most cruelly massacred, or put to death. 2. Punish those who cruelly murdered Thy saints. 3. The saints. The Wal-den'ses or Vau-dois' (vō-dwā') profess to have kept their religion free from error from the time of the Apostles. 4. Things without life; hence idols, images. 5. This was a common and cruel way of inflicting death upon those who would not renounce their religion. 6. Echoed again and again. 7. The hills echoed the moans to Heaven. 8. This refers to the proverb, "The blood of the martyrs is the seed of the church." 9. The Pope, the head of the Roman Catholic religion. He ruled over a great part of Italy at this time. Triple refers to his tiara (tī-ā-rā) or crown, which is a high cap of cloth of gold surrounded by three bands of gold indicating the Trinity. 10. "The slaughtered saints." 11. Fly from; avoid. 12. The woe or heavy calamities denounced against Babylon. (Rev. xiv. 8-11; xvii.; xviii.)

Draw maps (A) New Zealand; (B) Russia; (C) Canada.

Lesson 177.—Tuesday Morn. Geography. Write and Learn. NEW ZEALAND.

(A).—New Zealand lies about 1,000 miles south-east from Australia. It consists of three islands, two large ones, the North and the South Island, and Ste'wart Island. They are, altogether, nearly the size of the British Islands, and have a fine temperate climate, very much like that of England, with rich and fertile soil.

A range of snow-topped mountains runs from north to south, many of which are volcanoes. The highest point is Mount Eg'mont, in North Island, and Mount Cook, in South Island. There are a great many rivers and lakes. R. Wa-i-ka'-to (wā-ē-kā'-tō) in North Island, and Olu'-tha (lloo'-thā) in South Island, are the most important.

The chief minerals are gold, coal, silver, iron, and copper.

The colonists are mostly engaged in agriculture, sheep farming, and mining. The chief exports are wool and gold. Gum, flax, and timber are also sent away in large quantities.

EUROPE.—RUSSIA.—POLITICAL.

(B).—CHIEF TOWNS.—St. Pe'ters-burg (670,000), the capital, on the Neva, was founded by Peter the Great, 1703. It has a great export trade in tallow, hemp, flax, grain, and timber. Mos'-cow, the former capital, is one of the great centres for inland trade. Nij'-ni Nov'-go-rod is noted for its great fair, which lasts three months. Rev'-el and Ri'-ga (rē'-gā) are ports on the Baltic, exporting timber. O-des'-sa is the chief port on the Black Sea, and exports immense quantities of grain. As-tra-khan' is the chief port on the Caspian, and is situated near the mouth of the Volga. War'-saw, on the Vis'-tu-la, was the capital of Poland. Se-vas'-to-pol, in the Crimea, was destroyed by the British and French in 1855.

We have great trade with Russia by means of the Baltic Sea in the north, and the Black Sea in the south. The Russians export hemp, corn, flax, tallow, and timber, and in return we send them a large quantity of our chief manufactures.

LESSON 177—Continued.

(C).—Learn Lessons 152 (A) and 157 (A).

THE MOON.

(D).—**The Moon.** The moon is the *nearest* to us of the heavenly bodies, being only 240,000 miles distant. It is a **globe**, and looks as large as the sun, but that is because it is so near. It would take about 49 moons to make one earth, and nearly a million and a quarter earths to make one sun.

Like the earth and planets it is a *dark cold body*, and **shines** by light which it receives from the sun.

It **revolves** round the earth in about 29 days, and as it also **rotates** on its axis in the same time, *the same side of the moon is always turned towards the earth.* We never see the other side.

When seen through a telescope the whole surface of the moon looks like a **cold cinder**. There is no **water**, no **atmosphere**, no **vapour**, nor **life of any kind** on it.

"In former ages it was probably torn by fierce volcanic agencies; these fires are now extinct; but in the vast fissures and huge craters which mark the lunar surface we see the tremendous forces that in former times upheaved and cracked the crust of the moon."

The surface is very **irregular**, being covered with numerous **mountains, hills, and valleys**. The lofty mountains are generally of a *circular form*, and appear to be huge **craters**.

"As the moon does not shine by its own light, the bright part is that on which the sunlight falls, hence moonlight is sunlight second-hand."

Lesson 178.—Wednesday Morning. Work these Sums.

* (1) Find the true discount on £2,750, due in 2 years at $4\frac{1}{2}$ per cent.

(2) Five hundred sheep were bought at £2 2s. a head; their food cost 5s. 6d. a head; they were then sold at £2 8s. 6d. a head. Find the whole gain.

* (3) By purchasing railway shares at $13\frac{1}{2}$ per cent discount, and selling them at $5\frac{1}{2}$ per cent premium, I gain £300. What was the original sum I expended?

* (4) Find the compound interest and amount of £1,650 for 3 years at 5 per cent per annum.

(5) If 12 bricklayers can build 90 yards of wall in 8 days, how many must be employed to build 210 yards in 14 days?

Latin Roots.—Learn and Write.

scribo = I write; *scriptus* = written.

scribe, a writer.

scribble, to write hastily.

describe, to write about.

inscribe, to write in or on.

manuscript, a paper written by hand.

postscript (P.S.), something written after.

Scriptures, sacred writings; the Bible.

subscribe, to write under.

transcription, copying in writing.

Lesson 179.—Thursday Morn. Grammar. Write and Learn.Ex. 1. *Analyse and Parse the words in italics.*

Shame knew him not, he dreaded *no* disgrace,
Truth, simple truth, was written in his face ;
Yet, while the serious thought his soul approved,
Cheerful he seemed, and *gentleness* he loved.—(Crabbe.)

Ex. 2. *Paraphrase the above (i.e., turn into prose).*Ex. 3. *Form nouns denoting "littleness," by adding suitable affixes :*
 Globe, sack, lamb, leaf, flower, seed, duck, bull.**Latin Roots.—Learn and Write.**

nōcēo = I hurt, harm ; noxa = damage.

noxious, hurtful

innocent, not hurtful, blameless

innocuous, not hurtful, harmless

obnoxious, hurtful

nuisance, that which hurts or
annoys

annoy, to hurt the feelings

nōsco = I know ; nōtus = known ; nota = a mark.

notable, well known, remarkable

notify, to make known

notice, observe

notorious, known to disadvantage

recognise, to know again

annotate, to add notes to

noble, well known, high in rank

ignoble, not noble

Lesson 180.—Friday Morning. Work these Sums.

*(1) If the present worth of £218, due 2 years hence, is £200 ; what is the present worth of £1,000, due 6 years hence, at the same rate ?

(2) The average attendance in a school for 21 days is 61 ; the average for the first 8 days being 64, and that of the next 11 days being 59 ; required the average for the last 2 days.

(3) By selling tea at 5s. 4d. per lb. a grocer clears $\frac{1}{2}$ of his outlay. He then raises the price to 6s. 2d. What is his gain per cent on his outlay now ?(4) If $\frac{3}{4}$ of a ton of coals cost 4s., what is the value of $\frac{3}{4}$ of a ton ?

(5) Reduce 7qrs. 5bush. 3 pecks 1gal. 2qts. to the decimal of a quarter.

COMPOSITION.—Describe some *amusing occupation* by which you may employ your leisure time during the winter months, such as wood carving for boys, or doll dressing for girls.**THIRTY-SEVENTH WEEK.****Lesson 181.—Monday Morning. Learn.**

1 CORINTHIANS XV., Verses 16—24 ; OR ELSE LEARN—

THE LEGEND¹ OF HORATIUS.²—(Macaulay.)

But the Consul's brow was sad

And the Consul's speech was low,

And darkly³ looked he at the wall,⁴

(4) And darkly at the foe,

[GO TO NEXT PAGE.]

LESSON 181—Continued.

- "Their *van*⁵ will be upon us
 Before the bridge goes down ;
 And if they once may win the bridge,
 (8) What hope to save the town ?"
 Then out spake brave Horatius,
 The captain of the *gate* :⁶
 "To every man upon this earth
 (12) Death cometh, soon or late ;
 And how can man die better
 Than facing fearful *odds*,⁷
 For the ashes of his *fathers*,⁸
 (16) And the temples of his *gods* !"⁹

1. This legend (*lĕj'-end*) is recorded by Livy, a celebrated Roman historian, who lived about the time of Christ. It has been handed down from generation to generation, and is here supposed to be recited by a Roman minstrel about 100 years after the events took place. 2. Lu'-ci-us Tar-quin'-i-us, often called *Su-perb'-us* or the Proud, was the seventh and last King of Rome. On account of his tyranny, and the wickedness of his son, "false Sextus," he was deposed, and expelled with all his family from Rome, 509 B.C. The Romans appointed two magistrates or consuls, who were elected annually. Their duties were to preside over the senate, and to lead the army to battle. A few years after Tarquinius was expelled, Lars Por'-se-na, King of E-tru'-ri-a (now Tuscany), attempted to restore the Tarquins. The E-trus'-cans came against Rome with an overwhelming army. A battle took place, and the Romans were repulsed, and fled across the River Tiber by a wooden bridge into the city. The Consul ordered the bridge to be destroyed to prevent the Etruscans entering, but before this could be done they were close at hand. Coc'-les Hō-rā'-ti-us offered to cross the bridge and hold it, with two others, against the whole army of the enemy whilst it was being destroyed, and so saved the city. 3. Gloomily. 4. The wall of the city. 5. The foremost part of the army of Etruscans. 6. The captain of the soldiers who guarded the city gate. Rome was surrounded by a high and strong wall. 7. Fighting against overwhelming numbers. 8. The Romans did not bury their dead, but cre-ma'-ted them (that is, burnt them), and took care of the ashes, preserving them in urns or vases. 9. The Romans worshipped many gods.

Draw maps (A) New Zealand ; (B) Scandinavia ; (C) West Indies, or Australia.

Lesson 182.—Tuesday Morn. Geography. Write and Learn.**NEW ZEALAND.**

(A).—Wel'-ling-ton, on Port Nicholson, in the south of North Island, is the capital. Auck'-land, on the north-east coast, is a chief port, and was formerly the capital.

Nel'-son, Christ'-church, and Dun-e'-din are the chief towns in South Island.

These islands were made a British colony in 1841. They contain a population of about 500,000, most of whom are colonists from Great Britain, and their descendants. There are nearly 40,000 natives, called Ma-o'-ries, who chiefly live in North Island.

New Zealand is 15,000 miles distant from England. The voyage takes about two months, sailing round South Africa, but nine days shorter by the Mediterranean Sea and Suez Canal.

[TURN OVER.

LESSON 182—Continued.

The **Fi'ji** (*fě'-jě*) Islands, in the Pacific Ocean, about 1,200 miles north of New Zealand, were placed under British rule, by the native king, in 1874. There are two principal islands, and a number of small ones. The exports are cotton, cocoa-nut oil, coffee, sugar, and tobacco. The natives are warlike, and were formerly cannibals.

EUROPE.—THE SCAN-DI-NA'-VI-AN PENINSULA.—PHYSICAL.

(B).—Norway occupies the western and Sweden the eastern side of the Scandinavian Peninsula. They are now united under one sovereign.

BOUNDARIES.—North by the Arctic Ocean, west by the Atlantic and the North Sea, south by the Skag'-er Rack, the Cat'-te-gat, and the Baltic, and east by the Baltic and Russian Lap'-land.

SURFACE.—Norway is covered with mountains, the chief range is called the Dovre Fjeld (*dō'-vrě fyěld*), in the centre, and the Ki-o'-len Mts. (*kě-ō'-lěn*) in the north. Sweden receives many spurs from the Dovre Fjeld, but is in general low and level on the shores of the Baltic.

RIVERS.—The Got'-ha, from Lake We'-ner, flowing into the Cat'-te-gat; the Dal, U'-me-a, and Tor'-ne-a, into the Baltic, all in Sweden. The Gloom'-men, into the Skag'-er Rack from Norway. Owing to the mountains being so near the coast, Norway has few rivers. The coast is deeply indented with "fjords" (*fyörds*), like the west coast of Scotland. The lakes are numerous.

CLIMATE AND PRODUCTIONS.—Not a very severe climate, summers short and warm, winter lasts seven months. The wealth of the country is derived from the forests, which cover four-fifths of the country, the mines, and the fisheries. Shipbuilding is the principal manufacture, and iron and copper are the chief minerals. The Lof-fo'-den Isles, off the west coast, are noted for their fishing.

(C).—Learn Lessons 162 (A) and 167 (A).

THE MOON—(Continued).

(D).—Eclipses. An eclipse is the hiding of the light of one heavenly body by another one coming between it and the eye.

When the moon comes exactly between the sun and the earth it hides the sun. This is called an eclipse of the sun. This can only happen with a new moon.

The eclipses of the sun are of three kinds—

- (1) Total eclipse, when the moon's disc entirely covers that of the sun. This happens when the moon is at its least distance from the earth, and the sun at its greatest distance.

[GO TO NEXT PAGE.]

LESSON 182—Continued.

- (2) **Annular eclipse** (L. *annulus* = a ring) is when the moon's disc does not cover the whole of the sun's face, a ring of the sun is then visible round the moon. This can only occur when the sun is *nearest* and the moon *furthest* away from the earth.
- (3) **Partial eclipse.** This occurs when only a portion of the sun is hidden.

An eclipse of the moon takes place when the earth, being between the sun and the moon, prevents the light of the sun from reaching the moon. The sun therefore throws the **shadow of the earth** on the moon. This can only occur at *full moon*.

As the plane of the moon's orbit is inclined to that of the earth, it happens that there are only *two* points where these orbits cut. These points are called **nodes**. When one of these nodes is in a direct line with the earth and the sun, there will be either an eclipse of the sun or the moon, according as it is new or full moon.

Lesson 183.—Wednesday Morning. Work these Sums.

*(1) At 4 per cent per annum, what is the true discount on a bill of £100 due 3 months hence?

(2) A person has goods worth £30; he sells $\frac{1}{3}$ of them so as to lose 10 per cent; what must he sell the remainder at so as to gain 20 per cent on the whole?

*(3) If $15\frac{1}{2}$ yards cost $12\frac{1}{2}$ shillings, what will $4\frac{1}{2}$ yards cost?

(4) At what rate per cent per annum will £79 amount to £100 in $7\frac{1}{2}$ years?

(5) Divide 50 into two such parts that one shall exceed the other by 6.75.

Latin Roots.—Learn and Write.

sedeo = I sit; **sedens, sedentis** = sitting; **sessio** = a sitting.

sediment, that which settles to the bottom.

assiduous, sitting close to work; persevering.

preside, to sit before others; to direct.

reside, to remain sitting; to dwell.

subside, to settle down.

session, the sitting of a court, or public body.

possess, to be able to sit as master of.

assizes, the sitting of a court presided over by the judge, who is assisted by a jury.

Lesson 184.—Thursday Morn. Grammar. Write and Learn.

Ex. 1. *Analyse and Parse the words in italics.*

Every antique farm-house and moss-grown cottage is a picture; and as the roads are continually winding, and the view is shut in by groves and hedges, the eye is delighted by a continual succession of small landscapes of captivating loveliness.—(W. Irving.)

[TURN OVER.]

LESSON 184—Continued.

Ex. 2. *Form adjectives denoting "full of, abounding in, having," by adding suitable affixes:* Art, care, faith; glad, toil, whole; grass, rock, cloud.

Ex. 3. *By adding suitable prefixes and affixes to the Latin root, "jacio" = I throw, "jactus" = thrown, form one word meaning:* To cast down (sad); to throw between; to throw out; to throw forward; to throw in the way of; to throw to.

Latin Roots.—Learn and Write.

nūmērus = a number.

<i>numerous</i> , very many	<i>enumerate</i> , to count the number
<i>numerals</i> , figures used to express numbers	<i>supernumerary</i> , one above the number
<i>innumerable</i> , countless; not to be numbered	<i>numerical</i> , consisting of numbers.

pāter = a father; **patria** = fatherland.

<i>paternal</i> , relating to a father	<i>patron</i> , one acting as a father; a protector
<i>patriarch</i> , a chief father	<i>pattern</i> , something to be imitated
<i>patrician</i> , a descendant of the fathers	<i>pāt'-er nōs'-ter</i> , the Lord's Prayer

Lesson 185.—Friday Morning. Work these Sums.

***(1)** What is the compound interest on £75 10s. for 2 years and 8 months at 5 per cent per annum?

***(2)** At 4 per cent per annum, what would be the rate of interest if a discount of £1 were allowed on a bill of £100 due 3 months hence?

(3) Out of 800 soldiers, 170 are 5ft. 9in. in height, 340 are 5ft. 10in., 210 are 5ft. 11in., and the rest are 6ft. What is the average height of the men?

***(4)** My uncle left me $\frac{3}{4}$ of an estate. I sold $\frac{1}{8}$ of my share for £1,250. What was the value of the estate?

(5) By selling 26 yards of cloth at 3s. 4½d. per yard a draper gains 6s. 6d. What was the prime cost per yard, and what is the gain per cent?

COMPOSITION.—**Compare** the difference in the ways of living of people in a hot and in a cold climate. Show especially the difference in the matter of clothing, food, and occupations.

THIRTY-EIGHTH WEEK.**Lesson 186.—Monday Morning. Learn.**

1 CORINTHIANS XV., Verses 25—32; OR ELSE LEARN—

HORATIUS—(Continued).

"Hew down the bridge, Sir Consul,

With all the speed ye may;¹

I, with two more to help me,

(20) Will hold the foe in play.²

[GO TO NEXT PAGE.]

LESSON 186—Continued.

- In yon *strait path*³ a *thousand*⁴
 May well be stopped by *three*;⁵
 Now who will stand on either *hand*,⁶
 (24) And keep the bridge with me?"
 Then out spake *Spu'-ri-us Lar'-ti-us*,
 A *Ram'-ni-an*⁷ proud was he:
 "Lo, I will stand at thy right hand,
 (28) And keep the bridge with thee."
 And out spake strong *Her-min'-i-us*,
 Of *Ti'-ti-an* blood was he:
 "I will *abide*⁸ on thy left side,
 (32) And keep the bridge with thee."

1. Cut down the wooden supports of the bridge as quickly as you can.
 2. Keep them back by giving them something to do. 3. The narrow bridge.
 4. A thousand soldiers. 5. By three men, because only one or two at a time could get near the "strait path." 6. On each side of me. 7. The original settlers in Rome consisted of three tribes, the *Ram'-ni-ans* or *Ram'-nes*, the *Ti'-ti-ans* or *Ti'-ti-es*, and the *Lu-ce'-ri-ans* or *Lu-ce'-res*. From these three tribes the *Patricians*, or true Roman citizens, were descended. 8. Remain.

Draw maps (A) West Indies; (B) Scandinavia; (C) Australia.

Lesson 187.—Tuesday Morn. Geography. Write and Learn.

THE WEST INDIES.*

(A).—The **West Indies** are a group of islands in the Atlantic, between the United States and South America; they are divided into *three* groups.

The *Ba-ha'-mas* in the north. The **Greater An-tilles** (*an-teel'*)† and the **Lesser Antilles**. The Bahamas are *flat*. *Ja-mal'-ca*, in the Greater Antilles, is *mountainous*, and most of the Lesser Antilles are *volcanic*. Many of the islands are surrounded with *coral reefs*.

The islands are divided amongst **Great Britain, Spain, France, Holland, and Denmark** but at one time or other England has had possession of them all.

The *climate* is hot and the soil fertile. The productions are **sugar, rum** (made from sugar), **coffee, rice, maize, pine-apple, and arrowroot, tobacco, and spices.**

Gold and copper are found in *Jamaica*, and coal and *asphalte* in *Trin-i-dad'*.

CHIEF TOWNS.—**Spanish Town** is the capital of *Jamaica*, the largest of the British West Indies, but **King's Town** is the principal seat of trade. **Port of Spain** is the capital of *Trinidad*, the largest of the **LESSER ANTILLES**. **BAR-BA'-DOES** is the most *easterly* of the group, and is the oldest of all our possessions.

* Columbus discovered these islands in his voyage *westwards* across the Atlantic. He thought he had reached India, and called them *The West Indies*.

† The name is French. Do not sound the "es," the pronunciation in three syllables, *an-til'-lès*, is quite wrong.

LESSON 187—Continued.

EUROPE.—THE SCANDINAVIAN PENINSULA.—POLITICAL.

(B).—The GOVERNMENT is a **limited monarchy**, but each country has its own laws and legislative assembly. The RELIGION is the **Lu'ther-an** form of Protestantism.

CHIEF TOWNS.—SWEDEN. **Stock'-holm** (*stök'-hōm*), the capital (176,000), is built at the entrance to *Lake Mäl'-lar* (*mäl'-lär*). **Got'-ten-burg**, at the mouth of the *Gotha*, has considerable trade and manufacture.

NORWAY.—**Chris-ti-a'-ni-a** (*kris-tē-ā-nē-ā*), the capital (122,000), stands on a bay of the same name. **Ber'-gen** (*g hard*) is a great fishing place. **Trond'-hjem** (*trōnd'-yēm*) or **Dront'-heim** (*drōnt'-im*) was the ancient capital of Norway.

The mountains of this peninsula are extremely rich in *minerals*, but there is little *coal*. The **iron mines** of Sweden are the most famous in the world. A great deal of timber is converted into **charcoal** to be used in smelting the various ores. In the *north* of the peninsula the *dog* and the *reindeer* are the beasts of draught.

The Swedes (numbering $4\frac{1}{2}$ millions), and the Norwegians (numbering 2 millions), are a brave, loyal, industrious, and hospitable people. Both nations speak a language similar to Danish.

(C).—Learn Lessons 172 (A) and 177 (A).

PHASES OF THE MOON.

(D).—**Phases of the Moon.** By the phases of the moon is meant the *appearance* which the *illuminated face* of the moon presents to us during her revolution round the earth. (Greek, *phāsis* = an appearance.)

The moon does not really change its shape, but as it revolves round the earth from *west* to *east*, a larger and smaller portion of the illuminated half is gradually seen.

When the **moon** is *between* the earth and the sun its dark side is *towards* the earth, and the moon is invisible; it is then **new moon**. When the **earth** is *between* the sun and the moon, then the whole illuminated face of the moon is turned *towards* the earth, and it is said to be **full moon**.

From new to full the moon proceeds to the *east* of the sun, gradually increasing to a **cres'cent**, then to a **sem'icircle**, next to a **gib'bous** (= humpbacked) shape, and lastly to a **full moon**. In changing from full to new moon this order is reversed. From new to full moon, the moon is said to be **waxing**, and from full moon to new moon it is said to be **waning**.

Waxing = growing; **waning** = lessening.

Lesson 188.—Wednesday Morning. Work these Sums.

* (1) The discount on £226 2s. 8d., due at the end of 18 months, is £12 16s. Find the rate of interest.

(2) A grocer mixes 12lb. of tea at 2s. 6½d. per lb. with 4lb. at 3s. 2½d. At what price must he sell the mixture so as to gain 33½ per cent upon his outlay?

*(3) What must be given for 3½cwt. of coal, if ¾ of a ton cost 7s. 9d.?

(4) What sum invested in the 3 per cents at 98½ will purchase £7,268 worth of stock?

(5) A woman bought a certain number of eggs at the rate of 4 for 3d., and sold them at the rate of 5 for 4d., by which she made a profit of 2s. How many eggs did she buy?

Latin Roots.—Learn and Write.

sto = I stand; stans, stantis = standing; status = having stood.	
stable , standing firm; a fixed place for horses.	statute , that which is set up; a law.
establish , to make to stand firm; to fix.	constant , standing together.
state , standing; government.	distant , standing off.
stationary , standing; fixed.	instant , not standing; immediate.
statue , that which is made to stand up; an image.	substance , that which stands under; matter.

Lesson 189.—Thursday Morn. Grammar. Write and Learn.

Ex. 1. *Analyse and Parse the words in italics.*

On the earth the chieftain slept,
His mantle scarf around him; armed all,
Save that his shield hung near him, and his helm,
And by his side, in warrior readiness,
The sheathèd falchion lay.—(Southey.)

Ex. 2. *Form adjectives denoting "of" or "belonging to," by adding suitable affixes to these words:* Boy, brother, war, gentleman, God, clown, man.

Ex. 3. *What is the meaning of the prefix in these words. Give the full meaning of the words:* Incline, inaccurate, immerge, immoral irrigate, irregular, ignorant.

Latin Roots.—Learn and Write.

pello = I drive; pulsus = driven.	
pulse , the beat of an artery	compulsion , the act of compelling
compel , to drive forcibly	repulse , to drive back
dispel , to drive away; to banish	impel , to drive onward
pax = peace; pācis = of peace.	
pacify , to make peaceful	appease , to bring to peace; to calm
peace , quietness	peace-maker , one who makes peace

Lesson 190.—Friday Morning. Work these Sums.

*(1) Find the amount of £3,745 for 3 years at 5 per cent per annum, compound interest.

*(2) What is the commission on the sale of goods worth £1,243 19s. at $\frac{1}{2}$ per cent?

*(3) If 8 men can dig a trench 100ft. long, 3ft. broad, and 4ft. 6in. deep in 9 days, how many will be required to dig a trench 80ft. long, 5ft. broad, and 2ft. deep in $5\frac{1}{2}$ days?

(4) Simplify $4\frac{3}{4} - \frac{8\frac{1}{2} \times \frac{9}{2}}{2\frac{7}{8}} + \frac{1}{3}$ of 5

(5) If I borrow £300 for 8 months at 5 per cent, how much ought I to lend in return for 15 months at 3 per cent?

COMPOSITION.—Give an **account** of your *school inspection*; how you prepare for it; what you expect to do on the day; what is the use of inspection; and how does inspection benefit us.

THIRTY-NINTH WEEK.**Lesson 191.—Monday Morning. Learn.**

1 CORINTHIANS XV., *Verses* 33—38; OR ELSE LEARN—

HORATIUS—(Continued).

- "Horatius," *quoth*¹ the Consul,
 "As thou sayest, so let it be."
 And *straight*² against that great *array*³
 (36) Forth went the *dauntless*⁴ Three.
 For Romans in Rome's *quarrel*⁵
 Spared neither land nor gold,
 Nor son, nor wife, nor limb, nor life,
 (40) In the brave days of old.
 Then none was for a *party*;⁶
 Then all were for the *State*;⁷
 Then the great man helped the poor,
 (44) And the poor man loved the great:
 Then lands were fairly *portioned*;⁸
 Then spoils were fairly *sold*.⁹
 The Romans were like brothers
 (48) In the brave days of old.

1. An old English word meaning *said*. 2. = Straightway, at once. 3. The immense army of the enemy. 4. Courageous; without fear. 5. War. 6. In the latter days of the Roman Empire the people were divided into several parties, just as in England at the present day we have Conservatives and Liberals. The meaning here is that people often act for the benefit of their class or party rather than for the good of their country. 7. The Roman people and their country. 8. Land gained in war was fairly divided, instead of being kept by the strong, or given to the great. (See Note 1, Les. 216, v. 2.) 9. Spoil or booty taken in war was sold for the good of the whole State instead of being kept by the few. In other words, the powerful did not use their power to take advantage of the poor and weak.

Draw maps (A) Canada; (B) Denmark; (C) New Zealand.

Lesson 192.—Tuesday Morn. Geography. Write and Learn.**PRODUCTIONS OF CANADA.**

(A).—Things sent out of a country are called **Ex'-ports**. Canada exports many things which are very valuable and useful to England.

(1) **VEGETABLE PRODUCTIONS**.—The chief are **timber** of various kinds, **wheat** and **flour**.

The forests of Canada are immense. The chief trees are the **pine** and **fir** tree, the wood of which is called **deal**, and the **maple** tree, from the juice of which **sugar** is made. **Corn** is grown chiefly in the *west*.

(2) **ANIMAL PRODUCTIONS**.—These are very important. A large number of animals are caught for their **fur**. **Farm produce**, such as **pork**, **bacon**, and **butter**, is exported in large quantities.

The animals caught for their fur are the **mar-ten** and **sable** (small animals like a weasel), the **silver-fox**, **bear**, **beaver**, and **seal**.

Dried cod-fish, *lobster* and *salmon* (in tins), and *cod* and *seal-oil* are other valuable exports.

(3) **MINERAL PRODUCTIONS**.—Canada has an immense number of minerals. **Gold** from British Columbia, and **copper** from Newfoundland, are sent to England in large quantities.

Pet-ro'-le-um, or **Rock oil**, is got out of the ground from wells in Upper Canada, near Lakes Erie and Ontario. *Par'-af-in*, *naph'-tha*, and *candle* and *machinery oil*, are made from it.

EUROPE.—DENMARK.—PHYSICAL AND POLITICAL.

(B).—**Denmark** consists of the peninsula of **Jut'-land**, and of several islands at the entrance to the Baltic, **Zea'-land**, **Fü'-nen**, and **Laa'-land** (*lŕ'-lând*) being the chief.

BOUNDARIES.—*North* by the **Skag'-er Rack**, *west* by the **North Sea**, *south* by **Germany**, and *west* by the **Sound** and the **Cat'-te-gat**.

The **SURFACE** is flat, the soil poor and sandy, with no rivers of importance.

CLIMATE AND PRODUCTIONS.—The climate is humid, but temperate. **Agriculture** and the fattening of cattle are the chief employments.

The **GOVERNMENT** is a **limited monarchy**, and the **RELIGION** the **Lutheran** form of Protestantism. Population above 2 millions.

CHIEF TOWNS.—**Co-pen-ha'-gen**, the capital (235,000), stands on the island of *Zealand*, in the *Sound*. At **El-si-nore'** shipping dues were formerly paid by all vessels passing into the Baltic. They are now abolished.

The islands of **Ice'-land**, and **Farœ** (*fä'-rö*), in the *Atlantic*, belong to Denmark.

Mount Hec'-la, in Iceland, is one of the three volcanoes of Europe.

Rey'-kja-vik (*rî'-kyð-rik*) (2,000) is the capital of the island.

Green'-land, in North America, also belongs to **Denmark**.

(C).—*Learn Lessons 182 (A) and 187 (A).*

LESSON 192—Continued.

PHASES OF THE MOON—(Continued).

(D).—**1st Phase.—New Moon.** On the date given in the almanac for new moon it is invisible, and remains so for two or three days.

2nd Phase.—Crescent Moon. We just see a little of the illuminated face of the moon in the *west* of the sky. The **convex** side is towards the *west*, and the **concave** side towards the *east*, the direction in which the moon moves.

The crescent moon is seen a short time after sunset, but gradually the crescent grows broader each evening, and the moon sets later and later.

3rd Phase.—First Quarter (half moon). When the moon has made one quarter of her revolution (about seven days after new moon) it appears as a *semicircle*. The semi-circular part is towards the *west*, and the straight line to the *east*. As the sun sets in the *west* the moon is due *south* six hours after the sun, that is, about six o'clock in the evening.

4th Phase.—Gibbous Moon. The moon is now more than *half* lighted up on the *right hand* side. More and more of the moon's illuminated face comes daily into view.

Lesson 193.—Wednesday Morning. Work these Sums.

(1) For what must I sell a quantity of butter which cost me £31 15s. 10d., so that I may gain 15 per cent?

*(2) What is the commission on £718 6s. 8d. at $2\frac{1}{2}$ per cent?

*(3) How much tea can I buy for £1 15s. 8 $\frac{1}{2}$ d. when I pay 14s. for 4 $\frac{1}{2}$ lb.?

(4) In a school of 570 boys, 90 per cent are presented for examination, 500 pass in reading, 450 in writing, and 390 in arithmetic; what is the percentage of passes in each subject?

(5) What fraction of a guinea, together with 4s. 6d., is equivalent to 15s.?

Latin Roots.—Learn and Write.

tendo = I stretch; tensus, and tentus = stretched.

tend, to stretch out; to aim at.

attend, to stretch toward; to wait upon.

contend, to stretch out with all one's might; to struggle.

distend, to stretch apart; to swell.

extend, to stretch out; to enlarge.

intend, to stretch towards; to purpose.

pretend, to stretch out before; to make a show.

tent, a canvas house stretched on poles.

Lesson 194.—Thursday Morn. Grammar. Write and Learn.

Ex. 1. *Analyse and Parse the words in italics.*

I was *now* too far from home to think of returning, so I resolved to go *forward*. I had *some* knowledge of music, with a tolerable voice, and now turned my amusement into a *present* means of subsistence. I passed among the harmless peasants of Flanders, and among *such* of the *French* as were poor enough to be very merry. (*Goldsmith.*)

Ex. 2. *Form these words into adjectives.*

(1) *denoting of or belonging to* : France, angel, infant.

(2) *may, or can be* : Cure, convert.

(3) *state of being* : Act, please.

Ex. 3. *Break up the following words into their component parts (prefix, stem, and affix), and give their meaning* : Inclination, egress, dilate, disorderly, exhortation, decision, contradict.

Latin Roots.—Learn and Write.

pendēo = I hang down, I weigh, I pay ; **pensus** = weighed ; **pondus**, **ponderis** = a weight.

pendant, something hanging

append, to hang one thing to another ; to add

suspend, to hang one thing under another ; to delay

perpendicular, hanging straight down, or standing exactly upright

depend, to hang from, or down

impend, to hang over ; to threaten

pensive, thoughtful ; sad

dispense, to deal out

expend, to pay out

ponder, to think

avoirduois, having weight

Lesson 195.—Friday Morning. Work these Sums.

* (1) Find the amount of £475 15s. for 2 years at 3 per cent per annum, compound interest.

* (2) What is the brokerage on £840 10s. at 2s. 6d. per cent ?

* (3) If $\frac{1}{3}$ of a wall is built in 26 days, by 8 men working 9 hours a day, how much will be done by 12 men and 5 boys in 8 days, working 10 hours a day, if two boys do as much as one man ?

(4) What annual income will arise from the investment of £1,800 in the $3\frac{1}{2}$ per cents, when they stand at $87\frac{1}{2}$?

(5) I borrow £130 on the 5th March, and pay back £132 10s. 6d. on the 18th October in the same year. What rate per cent per annum of interest have I paid ?

COMPOSITION.—Write a **letter** to your teacher on any subject you like.

FORTIETH WEEK

Lesson 196.—Monday Morning. Learn.

1 CORINTHIANS XV., Verses 39—45; OR ELSE LEARN—

HORATIUS—(Continued).

- Now while the *Three*¹ were tightening
 Their *harness*² on their backs,
 The Consul was the *foremost*³ man
 (52) To take in hand an axe :
 And *Fathers*,⁴ mixed with *Commons*,⁵
 Seized hatchet, bar, and *crow*,⁶
 And smote upon the planks *above*,⁷
 (56) And loosed the *props*⁸ below.
*Meanwhile*⁹ the Tuscan army,
 Right *glorious*¹⁰ to behold,
 Came flashing back the noonday light,
 Rank behind *rank*,¹¹ like *surges bright*¹²
 (61) Of a broad sea of *gold*.¹³
 Four hundred trumpets sounded
 A peal of warlike *glee*,¹⁴
 As that great host with measured *tread*,¹⁵
 And spears *advanced*,¹⁶ and ensigns *spread*,¹⁷
 Rolled slowly towards the bridge's head,
 (67) Where stood the dauntless Three.

1. Horatius, Lartius, and Herminius. 2. Their armour. 3. First. 4. The nobles; the members of the Senate. They are generally called the *Pa-tri'-cians* (from *L. pater* = a father), because they were the fathers or heads of the old Roman families. 5. The free citizens, generally called the *Ple-be'-ians* (from *L. plebs* = the common people). 6. Crow-bar, a long rod of iron. 7. The planks forming the footway of the bridge. 8. The wooden supports underneath the bridge. 9. Whilst the Three brave men were putting on their armour. 10. Very beautiful in their glittering armour. 11. Lines of soldiers behind one another. 12. Like bright waves. 13. Shining in the golden sunlight. 14. Gladness and defiance. 15. Keeping time as they marched. 16. Stretched to the front. 17. Flags spread out to the wind.

Draw maps (A) Australia; (B) Mediterranean Sea; (C) South Africa.

Lesson 197.—Tuesday Morn. Geography. Write and Learn.

PRODUCTIONS OF AUSTRALASIA.

(A).—**New Zealand** (and some parts of **Australia** also), has a climate very much like that of Great Britain. All the ordinary *trees*, *plants*, *fruits*, and *domestic animals* of our country have been introduced and flourish.

[GO TO NEXT PAGE.]

LESSON 197—Continued.

The east of Australia is chiefly a farming and grazing country, hence the chief exports are—

(1) **ANIMAL PRODUCTIONS.**—Wool in immense quantities is sent from New South Wales, Queensland, and Victoria, together with hides, tallow, and preserved meat. New Zealand also exports wool.

The preserved meat, generally called **Australian mutton**, is cooked and put into tins. The best wool comes from the island of **Tasmania**.

(2) **MINERAL PRODUCTIONS.**—These are of untold value. Gold is found in greater or lesser quantities in all parts, but especially in Victoria and New South Wales. Much copper is exported from South Australia, and gold is also sent from New Zealand, and tin from Tasmania.

(3) **VEGETABLE PRODUCTIONS.**—These are not yet very important to us. Cotton is grown in the south-east of Australia, and New Zealand sends us flax, and the gum and wood of the **kau-ri** (*kow-ré*) palm. This tree only grows in the northern parts of North Island. The wood is used in shipbuilding.

LATITUDE AND LONGITUDE.

(B).—If a place is north of the equator it is said to be in north latitude, if south of the equator it is said to be south latitude.

The Equator is an imaginary circle drawn round the earth exactly halfway between the poles. The surface of the Earth is thus divided into two equal parts, one, north of the Equator, called the Northern Hemisphere, and the other, south of it, called the Southern Hemisphere.

Lat-i-tude is distance north or south from the equator.

Lines drawn round the map of the world, or across a map of a small part of the earth's surface from east to west, are called *parallels of latitude*. These parallels are at equal distances from the equator, and from one another.

Lines drawn round the world from north to south, passing through the poles, are called the **Me-rid'-i-ans**, or **lines of lon'-gi-tude**.

Longitude is distance east or west of a given place.

All places on the same meridian have mid-day or noon at the same time.

In English maps the meridian passing through **Green'-wich** (*grén-Atsh*) is called the *first meridian*.

Any place east of the first meridian is said to be in east longitude: if west of the meridian, it is said to be west longitude.

Latitude means *breadth*, **Longitude** means *length*, and **Meridian** means *mid-day*.

CLIMATE.

(C).—**Climate** means "the general kind of weather in some particular district."

Climate has a general meaning, hence it differs from *weather*, which has a restricted meaning, both of time and place.

[TURN OVER,

LESSON 197—Continued.

The *two* chief things which cause the climate of one part of the world to differ from that of another part, are:—

(1) The **temperature**, or warmth of the air.

(2) The amount of **moisture** it contains.

The chief causes which produce alterations in the temperature of the air, and of the amount of moisture it contains, are:—

(1) *Distance from the Equator*.—The tropics are the hottest parts of the world, because the sun's rays are direct, the summer days are long, and there is an *accumulation* of heat.

(2) *Elevation*.—The *higher* we ascend in the air the cooler it becomes, hence elevated lands, even under the Equator, are colder than plains.

(3) *Nearness to the sea*.—Water takes up heat slowly, and parts with it slowly, hence countries near the sea have a more temperate and regular climate than those inland.

(4) *The character of the surrounding country*.—High mountains protect a country from both *hot* and *cold* winds.

(5) *The nature of the most prevalent wind*.—*North* winds are generally cold, and *south* ones warm. In Europe *west* winds are often moist and *east* ones bleak and cutting, especially in England.

PHASES OF THE MOON—(Continued).

(D).—*5th Phase*.—**Full Moon**. The moon appears as a complete circle 15 days after new moon. It then rises in the *east*, as the *sun* sets in the *west*, and reaches the meridian (or due south), 12 hours after the sun, or at midnight.

6th Phase.—**Gibbous Moon**. *7th Phase*.—**Last Quarter**.

8th Phase.—**Crescent Moon**. The illuminated face of the moon gradually diminishes, on the side turned to the *west*, passing through the forms *gibbous*, *half moon* (last quarter), and *crescent*, until, a day or two before the time stated in the almanacs for new moon, it *entirely disappears*. At the time of **half moon** (last quarter) the moon passes the meridian 6 hours before the sun—that is, about 6 o'clock in the morning; it therefore rises about midnight. All these changes take up the period of a **lu'nar month** (or **luna'tion**, as it is called) of about 29½ days.

In the **first quarter**, and also up to **full moon**, the moon rises *after* the sun, and the *convex* part of the disc is turned towards the *west*, and the **horns** (points) of the **crescent** to the east. In the **last quarter** the moon rises *before* the sun, and the *convex* part of the disc is towards the *east*, while the horns point to the *west*. The horns are always turned from the sun.

When the **new moon** appears as a *narrow crescent* the dark part of her disc is sometimes seen shining with a faint light. This is caused by the sun's light being *reflected from the earth* to the moon, and then *reflected back* to us. It is called the "**earth shine**," and the "**old moon** is said to be in the new moon's arms."

In former days this appearance was thought to be the sign of a coming storm, but it has no such meaning.

Lesson 198.—Wednesday Morning. Work these Sums.

- *(1) What is the brokerage on £3,964 14s. at $1\frac{1}{2}$ per cent?
 (2) One man pays $\frac{5}{8}$ of £3 6s. 8d., another $\frac{1}{3}$ of £4 10s., and a third pays $\frac{7}{8}$ of £3 13s. 4d. Find the average amount paid.
 *(3) What is the brokerage on £852 10s. at $\frac{3}{8}$ per cent?
 *(4) Eggs are bought at $7\frac{1}{2}$ d. per dozen, and sold at 16 for a shilling. What is the gain per cent?
 (5) Find the difference between the interest and the true discount on £135 7s. 6d. for 9 months at 4 per cent.

Latin Roots.—Learn and Write.

traho = I draw ; **tractus** = drawn.

trace, to draw, or mark out.

track, a path marked out.

abstract, to draw off.

attract, to draw to.

detract, to draw from.

extract, to draw out.

retract, to draw back.

contract, to draw together ; an agreement.

tractable, easily drawn, or managed.

subtract, to draw from under ; to deduct.

Lesson 199.—Thursday Morn. Grammar. Write and Learn**Ex. 1. Analyse and Parse the words in italics.**

Fast by such brooks

A little glen is *sometimes* scooped, a plat

With *greensward* gay, and flowers *that* stranger *seem*

Amid the heathery wild, *that all* around

Fatigues the eye.—(Grahame.)

Ex. 2. Paraphrase the above (i.e., turn into prose).**Ex. 3. Form adjectives from these words, denoting**

(1) *likeness* : Child, brother, war, fool.

(2) *made of* : Leather, wood, clay.

(3) *without* : Hope, father, sense, breath.

Latin Roots.—Learn and Write.

pes = a foot ; **pēdis** = of a foot.

pedestal, the base of a statue

pedestrian, one who goes on foot

biped, an animal with two feet

pedicle, the first stalk of a flower

impede, to hinder

expedite, to hasten

impediment, that which hinders

antipodes, those who live on the opposite side of the earth

pungo = I prick ; **punctus** = pricked.

pungent, sharp, biting to the taste

punctual, exact ; to the point

puncture, a small hole

appoint, to fix ; to furnish

expunge, to blot out

compunction, the pricking of the conscience ; remorse

punctuate, to put in stops

Lesson 200.—Friday Morning. Work these Sums.

(1) Find the true discount on £672 10s., due in 50 days, at $4\frac{1}{2}$ per cent.

(2) In working a coalmine, 12 colliers obtain 96 tons of coal in 4 days; in what time would 8 colliers obtain £72 worth of coal from the same mine, supposing it to be worth 6s. per ton?

*(3) What is the cost of insuring a vessel and cargo worth £2,225 at $8\frac{1}{4}$ per cent?

(4) A man having 750 sheep sold 8 per cent of them to A, 90 of them to B, and $3\frac{1}{2}$ per cent of the remainder to C. How many sheep had he left?

(5) Simplify $\frac{1}{1\frac{1}{3}}$ of $\frac{1}{1 + \frac{1}{3 + \frac{1}{4}}}$

COMPOSITION.—Write a letter to your teacher on any subject you like.

FORTY-FIRST WEEK.**Lesson 201.—Monday Morning. Learn.**

1 CORINTHIANS XV., *Verses 46—53*; OR ELSE LEARN—
HORATIUS—(Continued).

- The Three stood calm and silent,
And looked upon the foes,
And a great shout of laughter
(71) From all the vanguard *rose*.¹
And forth three *chiefs*² came spurring
Before that deep *array*.³
To earth they sprang, their swords they drew,
(75) And lifted high their shields, and *flew*⁴
To win the narrow way.
But hark! the cry is *Astur*.⁵
And lo! the ranks *divide*.⁶
And the great Lord of *Luna*.⁷
(79) Comes with his *stately stride*.⁸
Upon his *ample*⁹ shoulders
Clangs loud the fourfold *shield*.¹⁰
And in his hand he shakes the *brand*.¹¹
(83) Which none but he can *wield*.¹²

1. The foremost division of the Tuscan army, who laughed at three men trying to stop them. 2. Leaders of the enemy. 3. Came to the front of the close ranks of soldiers. 4. Hurried on. 5. The name of the Lord of Luna. 6. The soldiers make way to let him pass. 7. Luna was a town in E-tru'-ri-a near what is now called the Gulf of Spe'-zi-a (*spët'-zē-ä*) in Italy. 8. He was a tall man and marched proudly. 9. Broad. 10. A large shield formed of four pieces of brass, which nearly covered his body. 11. The sword. 12. Use

Draw maps (A) New Zealand; (B) Baltic Sea; (C) India.

Lesson 202.—Tuesday Morn. Geography. Write and Learn.

CHIEF IMPORTS FROM THE COLONIES.

(A). **Tea**, from *As-sam'*, in the *N.E.* of *INDIA*.

Coffee, from *Cey'-lon*, in the *EAST INDIES*; *Ja-mai'-ca* and *Trin-i-dad'*, in the *WEST INDIES*.

Sugar, from *Ja-mai'-ca*, *Bar-ba'-does*, and *Trin-i-dad'*, in *WEST INDIES*; from *British Gui-a'-na*, in *S. AMERICA*; and *Mau-ri'-tius* (*maw-rish'-ē-ūs*), in the *INDIAN OCEAN*.

Cotton, from *Mauritius*, and *Queensland* in *AUSTRALIA*.

Wool, from *Australia*, *Cape Colony*, and *India*.

Oranges, from *Malta*. **Spices**, from *East Indies*.

Timber and Petroleum from *Canada*. **India-rubber** from *East Indies*.

MOTIONS OF THE EARTH—(Day and Night).

(B).—The earth does not *stand still* in the *sky*, but is always **spinning round**, just like a top.

We cannot feel the earth moving, because it moves so *fast*, and because everything on its surface, and the air surrounding it, moves along with it.

The earth spins round, or *ro'-tates*, once a day, turning from *west to east*. This is called its daily or *di-ur'-nal motion*.

Looking towards the *north* the earth is spinning round from the *left* hand towards the *right* hand. As we cannot *see* or *feel* it move, it appears as though it were standing still, and the *sun* were moving from *east to west*.

The *daily motion* of the earth causes **day and night**.

The earth is round, so the sun can only shine upon *half* of it at once.

That part on which the sun shines has *day*, and the part behind, where the sun is not shining, has *night*. As the earth spins round *once* in a day, all parts of it, one after another, are turned in front of the sun, and then are turned away from it.

A day is **24 hours long**, counting from *midnight*, or 12 o'clock at night, to midnight again.

INTERCHANGE OF PRODUCTIONS.

(C).—By **commerce** the productions of one country can be made use of in another country.

England is the greatest **commercial country** in the world.

By **commerce** is meant **trade** carried on, either in our own country, or with foreign countries. It is of three kinds; (1) *Home trade*, in our own country. (2) *Colonial trade*, with the colonies. (3) *Foreign trade*, with foreign countries not colonies.

England is such an **important commercial country** because—

(1) Its *manufactures* are so superior, and the materials for them have to come from so many different countries. (2) It is in a *central position*, and possesses so many *good harbours*. (3) Such *large quantities of food* are wanted for the inhabitants. (4) Its people are *active, intelligent, and pushing*.

[TURN OVER.

LESSON 202—Continued.

Things sent out of a country to other countries are called **ex-ports**.

The *exports of England* are chiefly **manufactured goods**, especially articles of clothing, or materials from which to make them, as cotton and woollen goods, machinery, hardware and cutlery; and **minerals**. These things are sent to all parts of the world, the colonies taking a very large quantity.

Things brought into a country from abroad are called **im-ports**.

Our greatest trade—both import and export—is first with the **United States**, and next with **France** and the **British Colonies**. There is much commerce between England and **Germany, Russia and Brazil**, and we have more or less trade with almost **every country** in the world.

Lesson 202 (D).—Revise Lessons 77, 82, 87, 92.

Lesson 203.—Wednesday Morning. Work these Sums.

*(1) What must be the price of 3 per cent consols, so that by investing £32,850 my income may be £1,080 a year?

*(2) In three years a sum of money amounts with compound interest at 5 per cent to £928 2s. What will it amount to in 5 years?

*(3) What sum should be insured at 4 per cent on goods worth £735, so that in case of loss the owner may secure both the value of the goods and the premium paid?

(4) Find the simple interest on £6,901 for 292 days at 3 per cent per annum.

(5) What is the principal sum from which £270 arises as simple interest in $4\frac{1}{2}$ years at $6\frac{1}{2}$ per cent?

Latin Roots.—Learn and Write.

terra = the earth; the ground.

terrace, a bank of earth.

inter, to place in the earth; to bury.

terrier, a dog that pursues animals to their earth, or burrow.

territory, the extent of land belonging to a city or state.

country, land near to a town; a tract of land.

subterranean, under the ground.

Mediterranean, the midland sea.

Lesson 204.—Thursday Morn. Grammar. Write and Learn.

Ex. 1. *Analyse and Parse the words in italics.*

Then crowned again, their golden harps they took,

Harps ever tuned, that glittering by their side,

Like quivers hung, and with preamble sweet

Of charming symphony, they introduce

Their sacred song, and waken raptures high.—(Milton.)

Ex. 2. *Form verbs denoting "to make" from these words:* Bright, moist, stupid, fertile, example, glad, public, cheap.

[GO TO NEXT PAGE]

LESSON 204—Continued.

Ex. 3. Break up these words into their component parts (*prefix, stem, and affix*), and give their meaning: Seduction, remission, pretend, president, subjection, transcribe, ultramarine.

Latin Roots.—Learn and Write.

spiro = I breathe; *spiratus* = breathed.

<i>spirit</i> , breath	<i>perspire</i> , to breathe through (the pores of the skin); to sweat
<i>inspire</i> , to breathe into	<i>respire</i> , to breathe again; to take breath
<i>conspire</i> , to breathe together; to join together to do evil	<i>dispirit</i> , to cast down
<i>expire</i> , to breathe out; to die	straight; <i>rex, regis</i> = a king.
<i>rēgo</i> = I rule; <i>rectus</i> = ruled,	<i>correct</i> , to remove faults
<i>regal</i> , kingly; royal	<i>direct</i> , to guide
<i>regent</i> , a ruler	<i>erect</i> , to set up
<i>region</i> , a district ruled over	<i>rectify</i> , to make right
<i>reign</i> , rule of a king	

Lesson 205.—Friday Morning. Work these Sums.

(1) What would a banker gain by discounting on 31st August a bill of £9,850 13s. 4d. dated 16th June, at 6 months, at 4 per cent?

(2) A man earns 6d. an hour for overtime work. In one week he works 30 hours overtime; in the second, 25; in the third, 12½; and in the fourth, 24. What are his average weekly overtime earnings?

*(3) What is the premium to be paid on a policy of life insurance of £6,968 for 2 years at 4½ per cent?

(4) What number multiplied by $\frac{2}{3} + \frac{5}{8} + \frac{1}{2} - 1\frac{1}{2}$ will produce ·37575?

(5) Find and state in a decimal form the average of the following five quantities: $\frac{71}{100}$ of $\frac{1}{2}$; ·018, 0, 3, and $\frac{5}{8}$.

COMPOSITION.—Write a letter to your teacher describing the things you have noticed as you come to school.

FORTY-SECOND WEEK.

Lesson 206.—Monday Morning. Learn.

1 CORINTHIANS XV., Verses 54—58; OR ELSE LEARN—

HORATIUS—(Continued).

Then, *whirling*¹ up his broadsword

With both hands to the *height*,²

He rushed against Horatius,

(87) And *smote*³ with all his might.

With shield and *blade*⁴ Horatius

Right *defly*⁵ turned the blow,⁶

The blow, though turned, came yet too *nigh*;⁷

It missed his *helm*,⁸ but *gashed*⁹ his thigh:

The Tuscans raised a joyful cry

(93) To see the red blood flow.

[TURN OVER.

LESSON 206—Continued.

- He *reeled*,¹⁰ and on Herminius
 He *leaned* one *breathing space*;¹¹
 Then, like a wild cat mad with wounds,
 (97) Sprang *right*¹² at Astur's face.
 Through teeth, and skull, and helmet,
 So fierce a thrust he *sped*,¹³
 The good sword stood a *hand-breadth* out,¹⁴
 (101) Behind the Tuscan's head.

1. Raising quickly. 2. On high so as to give a powerful blow. 3. Struck. 4. Sword. 5. Cleverly; skillfully. 6. Turned it aside so as not to strike him on the head. 7. Near. 8. Helmet. 9. Made a large wound. 10. Staggered. 11. A short time to get breath. 12. Straight. 13. Sent out, or gave with force. 14. The distance as much as the breadth of the hand.

Draw maps (A) West Indies; (B) River Danube; (C) British Isles.

Lesson 207.—Tuesday Morn. Geography. Write and Learn.

USES OF OUR COLONIES AND POSSESSIONS.

- (A).—(1) As **military** and **naval** stations—
 Heligoland, Malta, Gibraltar, Aden, Cyprus.
 (2) **Calling stations** for ships (for water, coals, and provisions)—
 Ascension I., St. Helena I., Aden, Mauritius I., Ceylon—
 (3) **Depôts** for produce of other countries—
 Aden, Hong Kong, Singapore I., Malacca, Ceylon I.
 (4) **Fields for Emigration**—
 Australia, New Zealand, Canada, Cape Colony.
 (5) **For Raw produce**—
 India, Australia, Cape Colony, Canada, West Indies.

THE FOUR SEASONS.

(B).—The earth has **two** motions—one a daily motion, the other a yearly motion. The yearly motion is sometimes called the **an-nu-al** motion.

The earth does not spin round, and keep in *one* place; it is always *moving on*, in a large circle, round the sun. It **revolves** round the sun *once* in a year.

The **Annual Motion** of the earth causes the *Four Seasons**—
Spring, Summer, Autumn, Winter.

In **Summer** all *our part of the world* is turned *towards* the sun, and so we get a great deal of his heat and light, and those who live near the equator get the most of it. But in **Winter** the part of the world *we live in* is turned *away* from the sun, and so we get but little heat, and the days are short. In **Spring** and **Autumn** we are turned almost *straight* to the sun, so our days are generally neither very hot nor very cold. On two days of the year, March 22nd and September 22nd, the day and night is of the same length all over the world—that is 12 hours each. [GO TO NEXT PAGE.]

* This difficult subject will require illustrating with good diagrams and a globe, &c. See Lockyer's *Primer of Astronomy*, Lockyer's *Elementary Lessons in Astronomy*, and Geikie's *Physical Geography*, all published by Macmillan.

LESSON 207—Continued.

The *points* on which the earth *seems* to turn are called the **Poles**, one the **North Pole** and the other the **South Pole**.

A line passing through the **centre of the earth**, from pole to pole, is called the **axis of the earth**.

The **North Pole**, and the **axis** of the earth, *always point* to the *same part* of the sky.

IMPORTS TO GREAT BRITAIN.

(C).—The **imports** may be arranged under three heads.

(1) *Raw Materials* for our manufactures, of which the colonies supply large quantities. The chief are—

Cotton—United States, Egypt, Hindustan, Brazil, Australia.

Wool—Australia, South Africa, East Indies, South America, and Germany.

Silk—East Indies, Italy, France, and China.

Flax and Hemp—Russia and Egypt. **Jute**—Hindustan.

Hides and Tallow—South America, Russia, and Cape Colony.

Timber—Canada, Baltic Countries, Central America, and Further India.

Gold—Australia, California, South Africa, Peru, Mexico, and the Ural Mts.

Silver—South America and Austria.

Oils—Mediterranean Countries and West Africa.

(2) *Articles of food*, such as—

Wheat—United States, Russia, and Egypt.

Flour—United States, Canada, Prussia, and France.

Rice—Hindustan, China, and Singapore.

Tea—China and Assam.

Coffee—Ceylon, West Indies, Arabia, and Brazil.

Sugar—East and West Indies, Brazil, and Mauritius.

(3) *Articles of luxury*, such as—

Wines and Spirits—France, Germany, Spain, Portugal, and many of our colonies.

Tobacco—United States, West Indies, and Turkey.

Lesson 207 (D).—Revise Lessons 187, 192, 197.

Lesson 208.—Wednesday Morning. Work these Sums.

* (1) A woman buys a certain number of apples at 3 a penny and a similar number at 2 a penny. She then mixes them and sells the whole at 5 for twopence. How much does she gain or lose per cent ?

(2) What sum would you receive for a note of £500, due on the 13th November, and discounted on the 1st of October, at 7 per cent ?

(3) If £600 gain £45 in 18 months, how much will £103 gain in 12 months ?

* (4) A person invests £10,000 in 3 per cents at 75, and when they rise to 78 he sells out and invests the produce in bank shares at £208 each, which pay a dividend of £8 per share. Show that his income is not altered.

(5) What vulgar fraction of a mile represents the same length as three-quarters of an inch ?

[TURN OVER.]

LESSON 208—Continued.

Latin Roots.—Learn and Write.

voco = I call ; vocans, vocantis = calling ; vocatus = called.	
<i>vocation</i> , calling or occupation.	<i>convoke</i> , to call together.
<i>avocation</i> , a calling away from ;	<i>irrevocable</i> , not to be recalled.
that which engages one's	<i>provoke</i> , to call forth (as anger).
attention.	<i>vouch</i> , to call upon ; to witness.
<i>vociferate</i> , to call with a loud voice.	

Lesson 209.—Thursday Morn. Grammar. Write and Learn.**Ex. 1. Analyse and Parse the words in italics.**

Soon as the evening shades prevail
 The moon *takes up* the wondrous tale ;
And nightly to the listening earth
 Repeats the story of *her birth*.—(Addison.)

Ex. 2. Correct these sentences, and show why they are wrong : If everyone swept before *their* own doors, the street would be clean. None of the enemy *were* taken. It cannot be *him*. I have not seen him *this* forty years. *Neither* of the three will do.

Ex. 3. Give the meaning of these words, showing the special force of the Greek prefixes : Amphitheatre, exodus, analysis, epitaph, archipelago, autograph.

Latin Roots.—Learn and Write.

	verto = I turn : versus = turned.
<i>advert</i> , to turn to ; to attend to	<i>subvert</i> , to overturn
<i>convert</i> , to turn into another	<i>adverse</i> , having a dislike to
form ; to change opinions	<i>converse</i> , talk with one another
<i>divert</i> , to turn aside	<i>diverse</i> , different
<i>invert</i> , to turn upside down	<i>perverse</i> , stubborn
<i>pervert</i> , to turn a thing from its	<i>traverse</i> , to pass over
right use	<i>universe</i> , the whole creation

Lesson 210.—Friday Morning. Work these Sums.

(1) If a clerk has a salary of £75 10s. per year, commencing on the 1st February, 1885, how much should he receive on leaving his employment on the evening of the 6th September the same year ?

(2) A merchant bought wines at 30s., 40s., and 50s. per dozen. These he mixed together in equal quantities, and sold at 50s. per dozen. Find his gain per cent.

(3) A speculator investing in the 3 per cents obtains 4 per cent for his money ; at what rate does he buy in ?

(4) From what principal does £273 15s. arise in a year at $4\frac{1}{2}$ per cent ?

(5) How much stock in the 4 per cents can be purchased for £1,240 when the price is 89 $\frac{1}{2}$?

COMPOSITION.—Write a letter to your teacher on any subject you like.

APPENDIX.

LESSON 211. But meanwhile axe and lever
 Have *manfully*¹ been *plied*;²
 And now the bridge hangs *tottering*³
 Above the *boiling tide*.⁴
 "Come back, come back, Horatius!"
 Loud cried the fathers all.
 "Back, Lartius! back, Herminius!"
 (109) Back, ere the *ruin fall*!"⁵

1. With great strength; boldly and bravely. 2. Used. 3. Ready to fall.
 4. The swollen and surging river. 5. The bridge ready to fall.

Back *darted*¹ Spurius Lartius;
 Herminius darted back:
 And, as they passed, beneath their feet
 They heard the timbers *crack*;²
 But when they *turned their faces*,³
 And on the *farther shore*⁴
 Saw brave Horatius stand alone,
 (117) They would have crossed once *more*.⁵

1. Ran very quickly. 2. Because the supports of the bridge had been cut through. 3. Looked back to the other side of the bridge where Horatius was standing. 4. The opposite side of the river. 5. They would have gone back to him.

LESSON 212. But with a *crash*¹ like thunder
 Fell every loosened beam,
 And, like a *dam*,² the mighty wreck
 Lay right *athwart*³ the stream:
 And a long shout of *triumph*⁴
 Rose from the *walls of Rome*,⁵
 As to the highest *turret-tops*⁶
 (125) Was splashed the *yellow foam*.⁷

1. A loud noise. 2. Anything across the river which stops the flow of the waters. 3. Across. 4. Because the Etruscans were now unable to get into the city. 5. The spectators on the walls. 6. The small towers on the walls. 7. The waters of the Tiber are always spoken of as yellow, being muddy.

Alone stood brave Horatius,
 But *constant*¹ still in mind;
 Thrice thirty thousand foes before,
 And the *broad flood behind*.²
 "Down with him!" cried false *Sextus*,³
 With a smile on his pale face;
 "Now yield thee," cried *Lars Porsena*,⁴
 (133) "Now yield thee to our *grace*."⁵

1. Firm; brave and unmoved. 2. Horatius was facing the enemy and behind him was the broad flood or river. 3. He was the son of Tarquinius, and much more wicked than his father. 4. The king and leader of the Etruscans. (*Lars* was a name given to the eldest son, and in time came to mean *Lord*.) 5. Mercy.

APPENDIX—Continued.

LESSON 213. Round turned he, as not *deigning*

Those *craven*² ranks to see ;
Nought spake he to Lars Porsena,
To Sextus nought spake he ;
But he saw on *Pal-a-ti'-nus*³
The white *porch*⁴ of his home ;
And he spake to the noble river

(141) That rolls by the towers of Rome.

1. Condescending ; thinking it worthy of himself. 2. Coward. 3. One of the seven hills on which Rome was built. It was situated on the east of the city. 4. The entrance door built of white stone.

" Oh, Tiber ! *father Tiber* !¹
To whom the Roman's pray,
A Roman's life, a Roman's arms,
Take thou in *charge*² this day ! "
So he spake, and speaking, *sheathed*³
The good sword by his side,
And with his *harness*⁴ on his back,

(149) Plunged headlong in the *tide*.⁵

1. The river was often spoken of thus. 2. Take care of. 3. Put into the scabbard or case. 4. Armour. 5. The fast-flowing river.

LESSON 214. No sound of joy or sorrow

Was heard from either bank ;
But friends and foes in *dumb surprise*,¹
With parted lips and straining *eyes*,²
Stood *gazing*³ where he sank ;
And when above the *surges*⁴
They saw his *crest*⁵ appear,
All Rome sent forth a *rapturous cry*,⁶
And e'en the *ranks of Tuscany*⁷

(159) Could *scarce*⁸ forbear to *cheer*.⁹

1. They were so surprised that they were unable to speak. 2. To see what would become of him. 3. Looking earnestly. 4. The waves. 5. The top of his helmet. 6. A shout of joy. 7. Those of the enemy who saw what Horatius had done. 8. Scarcely. 9. Refrain from, or keep from cheering.

But fiercely ran the *current*,¹
*Swoll'n high*² by months of rain ;
And fast his blood was *flowing*,³
And he was *sore in pain* ;⁴
And heavy with his armour,
And *spent*⁵ with changing *blows* ;⁶
And oft they thought him sinking,

(167) But still again he rose.

1. The river. 2. With very deep water. 3. From the wounds he had received in fighting. 4. In very great pain. 5. Exhausted, worn out, very tired. 6. Fighting.

APPENDIX—Continued.

LESSON 215. Never, I *ween*,¹ did swimmer
 In such an evil *case*,²
 Struggle through such a raging *flood*³
 Safe to a landing place ;
 But his limbs were borne up *bravely*,⁴
 By the brave heart within,
 And our good father Tiber

(175) Bore bravely up his *chin*.⁵

1. I think. 2. Under such difficult circumstances. 3. The strong swift flowing river. 4. He struggled bravely and never lost heart. 5. He had prayed Father Tiber to take care of him, and the river is here represented as doing so.

"Curse on him,"¹ quoth² false Sextus,
 "Will not the *villain*³ drown ?
 But for his *stay*,⁴ ere⁵ close of day,
 We should have *sacked*⁶ the town !"
 "Heaven help *him*,"⁷ quoth Lars Porsena,
 "And bring him safe to shore ;
 For such a gallant *feat*⁸ of arms

(183) Was never seen before."

1. Curse him. 2. Said. 3. Horatius was not a bad man, but Sextus uses this word to show his hatred of him. 4. Obstacle, hinderance. 5. Before. 6. Taken Rome and plundered it. 7. Lars Porsena, though his enemy, admires his bravery and hopes he may be saved. 8. A brave and clever deed.

LESSON 216. And now he feels the *bottom*.¹
 Now on dry earth he stands ;
 Now round him throng the *fathers*²
 To press his *gory*³ hands ;
 And now with shouts and clapping,
 And noise of *weeping loud*,⁴
 He enters through the *river-gate*⁵

(191) *Borne*⁶ by the joyous crowd.

1. The shallower part of the river bed on the other side. 2. The nobles. 3. Covered with blood. 4. Many wept for joy at seeing him safe. 5. The city-gate leading from the river. 6. Carried along.

They gave him of the *corn-land*,¹
 That was of *public right*,²
 As much as two strong *oxen*³
 Could plough from morn till night ;
 And they made a molten *image*,⁴
 And set it up on *high*,⁵
 And there it stands unto *this day*⁶

(199) To witness if I lie.

1. The land which belonged to the Roman state, like our "crown-lands." This consisted, at first, chiefly of land belonging to the neighbouring tribes whom the Romans conquered. 2. The right to this land belonged to the

APPENDIX—Continued.

people at first, but afterwards the possession of public land was a privilege of the Patricians. 3. Horses were not generally used by the Romans for farming. Up to recent times oxen were used in England for ploughing and other farm work. 4. A statue. 5. This statue was set up in the "Co-mit-i-um," an open space at one end of the "Forum" or market-place. 6. That is at the time the story is told by the Roman minstrel. (See Note 1, Lesson 181.)

THOMAS BABINGTON MACAULAY (afterwards Lord Macaulay) was born at Rothley Temple, in Leicestershire, in 1800, and died at Kensington (London), 1859. He was one of our greatest historians, orators, essayists, and poets. His fame rests chiefly on his "Essays" on various subjects, and his "History of England," which was not completed when he died. Of his poetry, "The Armada" and "The Lays of Ancient Rome" (from which "The Legend of Horatius" is taken) are the chief pieces. It is the style of his English prose that makes him one of the greatest authors of this century.

TABLE OF PREFIXES.

I.—ENGLISH PREFIXES.

- 1 **a**=*on* : as *abed*, *aboard*, *ashore*.
- 2 **a**=*against*, *close to* : as *along*, *abreast*.
- 3 **a**=*of*, *from* : as *adown*, *anew*, *akin*, *athirst*.
- 4 **an**=**and**=*against* : as *answer*, to swear *against*.
- 5 **be**=*by*, *beside*, *to make* : as *bedim*, to make *dim* ; *becalm*.
- 6 **en** (**em** or **im**, before *b* and *p*)=*in* : as *enshrine*, *embark*, *implant*.
- 7 **for**=*through*, *thoroughly* : as *forgive*, *forbid*.
- 8 **fore**=*before* : as *foretell*, *forecast*, *forenoon*.
- 9 **gain**=*against* : as *gainsay*, to speak *against*.
- 10 **mis**=*wrong*, *ill*, *not* : as *mistake*, *misdeed*, *mistrust*.
- 11 **off**=*from* : as *offshoot*, *offspring*.
- 12 **out**=*beyond* : as *outbid*, *outburst*.
- 13 **over**=*over*, *above* : as *overseer*, one who looks *over* another whilst at work ; *overcast*, *overdo*, *overcharge*.
- 14 **to**=*to*, *on this* : as *together*, gathered *to* ; *to-day*, this day.
- 15 **un**=*not* : as *unable*, *unbind*.
- 16 **under**=*under*, *below* : as *understand*, *undergo*, *undersell*.
- 17 **with**=*from*, *against* : as *withdraw*, *withhold*.

II.—LATIN PREFIXES.

Most of these prefixes are Latin prepositions, but in many words (which have come to us through the French) they have undergone very considerable modification. All French forms are included in brackets.

1 **a**, **ab**, or **abs**=*from* or *away* : as *avert*, to turn *from* ; *abrupt*, broken *from* ; *abstract*, to draw *from*.

2 **ad**=*to*, and has the various forms of (**a**), **ac**, **af**, **ag**, **al**, **an**, **ap**, **ar**, **as**, **at**. so as to join easily

in sound with the first consonant of the root : as *advert*, to turn *to* ; *ascend*, *abate*, *accept*, *affable*, *aggregate*, *allot*, *annex*, *approach*, *arrive*, *assist*, *attend*.

3 **ante** or **an**=*before* : as *antedate*, to date *before* ; *antecham-*

ber, *antecedent*, *ancestor*, one who has gone before.

4 **bis** or **bi**=*twice*: as *bisect*, to cut in two; *biscuit*, twice baked.

5 **circum** or **circu**=*round* or *about*: as *circumvent*, to come round, to cheat; *circuitous*, *circumscribe*.

6 **cis**=*on this side*: as *cis-alpine*, on this side the Alps, opposed to *transalpine*.

7 **con**=*together*, and takes the forms of **co**, **cog**, **col**, **com**, **cor**: as *connect*, to bind together; *coeval*, *cognate*, *collect*, *comply*, *correct*.

8 **contra**, sometimes changed into **contro** or (**counter**)=*against*: as *contradict*, to speak against; *controvert*, *counteract*.

9 **de**=*down*: as *depose*, to place down; *describe*, *depute*.

10 **dis**=*asunder*; sometimes changed into **di** or **dif**: as *disseminate*, to scatter seeds asunder; *divert*, *diffuse*.

11 **ex** and **e**=*out*; sometimes take the forms of **ec**, **ef**: as *eject*, to throw out; *expel*, to drive out; *eccentric*, *anecdote*, *efface*.

12 **extra**=*without* or *beyond*: as *extravagant*, wandering beyond bounds; *extraordinary*.

13 **in**, when prefixed to an adjective=*not*, and takes the forms of **ig**, **il**, **im**, **ir**: as *inattentive*, *ignorant*, *illiterate*, *immature*, *irregular*.

14 **in**, when prefixed to a verb=*in* or *into*, and takes the forms of **em**, **en**, **il**, **im**, **ir**: as *include*, to shut in; *induce*, *embrace*, *encourage*, *illuminate*, *impose*, *irrigate*.

15 **inter** (or **enter**)=*between*: as *intersect*, to cut between; *interpose*, *intermediate*, *entertain*.

16 **intro**=*within*: as *introduce*, to lead within.

17 **ne** or **nec**=*not*: as *nefarious*, not to be spoken of; *neglect* [**neg**=**nec**].

18 **non**=*not*: as *nonsense*, not sense; *nonentity*, *nonage*, *non-descript*.

19 **ob**=*in the way of* or *over against*, and takes the forms of **o**, **oc**, **of**, **op**, **os**: as *obstruct*, to build in the way of, to hinder; *omit*, *occur*, *offend*, *oppose*, *ostentation*.

20 **per**, **pel**, or **pol**=*through* or *thorough*: as *perfect*, to make thorough; *pellucid*, *pollute*.

21 **post**=*after*: as *postscript*, written after; *postpone*.

22 **pre**=*before*: as *prefix*, to place before; *predict*, *precede*.

23 **pro**=*forth* or *forward*, and takes the forms of **pol**, **por**, **pur**: as *promote*, to move forward; *project*, *produce*, *pollute*, *portrait*, *purlin*.

24 **re** or **red**=*back* or *again*: as *resume*, to take back; *redeem*, *resolve*.

25 **retro**=*backward*: as *retrospect*, a looking backward; *retrograde*.

26 **se** or **sed**=*aside* or *apart*: as *secede*, to go apart; *sedition*.

27 **sine**, **sin**, or **sim**=*without*: as *sinecure*, an office without any duty; *sincere*, *simple*.

28 **sub**=*under*, and takes the forms of **suc**, **suf**, **sug**, **sum**, **sup**, **sus**: as *subtract*, to draw under; *succumb*, *suffer*, *suggest*, *summons*, *support*, *sustain*.

29 **super** (or **sur**)=*above* or *over*: as *superscribe*, to write over; *superstructure*, *survey*, *surmount*.

30 **trans**, **tra**, or **tran**=*beyond, across*: as *transfer*, to carry across; *traduce*, *transcribe*, *trans-alpine*.

31 **ultra**=*beyond*: as *ultra-*

marine, beyond the sea; *ultra-montane*.

32 **vice** (or **vis**)=*instead of*: as *viceroys*, *viscounts*.

III.—GREEK PREFIXES.

1 **a** or **an** [ἀ]=*without*: as *apathy*, without feeling; *anarchy*, *atheist*, *anonymous*.

2 **amphi** [ἀμφι] = *round or on both sides*: as *amphitheatre*, a round theatre; *amphibious*.

3 **ana** or **an** [ἀνά] = *back, again, up*: as *analyze*, to resolve; *anatomy*, *anagram*, *analog*, *anodyne*.

4 **anti** or **ant** [ἀντι] = *against or opposite to*: as *antipathy*, a feeling against; *antidote*, *antagonist*, *antarctic*.

5 **apo** or **ap** [ἀπό] = *from*: as *apogee*, from the earth; *apology*, *aphelion*.

6 **arch**, **archi**, or **arche** [ἀρχή] = *chief*: as *archbishop*, *architect*, *archipelago*, *archetype*.

7 **auto** or **auth** [αὐτός] = *self*: as *autograph*, a signature written by one's self; *authentic*.

8 **cata** or **cat** [κατά] = *down or from*: as *cataract*, a waterfall; *catacombs*, *catastrophe*, *catechise*, *catholic*.

9 **dia** or **di** [διά] = *through*: as *diameter*, a line passing through; *dialogue*, *diagonal*, *diorama*, *diocese*.

10 **ec** or **ex** [ἐκ, ἐξ] = *out of*: as *eccentric*, out of the centre; *exodus*.

11 **epi** or **ep** [ἐπὶ] = *upon or during*: as *epitaph*, an inscription on a tombstone; *epidemic*, *ephemeral*, *epoch*.

12 **hemi** [ἡμι] = *half*: as *hemisphere*, half a sphere.

13 **hypo** [ὑπό] = *under*: as *hypothesis*, a placing under; *hypocrite*.

14 **meta** or **met** [μετά] = *change or after*: as *metamorphosis*, a change of form; *metaphor*, *metonymy*.

15 **para**, **par**, or **pari** [παρά] = *by the side of, equal*: as *parable*, a similitude; *paradox*, *paragraph*, *paraphrase*, *parody*, *parallel*.

16 **peri** [περί] = *round*: as *period*, a going round (of time); *periphery*.

17 **syn**, **sy**, **syl**, **sym**, or **sys** [σύν] = *together*: as *synthesis*, a placing together; *systole*, *syllable*, *sympathy*, *system*.

TABLE OF AFFIXES.

I.—AFFIXES FORMING NOUNS.

1. Denoting the agent or doer of a thing.

***ar**, as *li-ar*, *begg-ar*.

***ard** } as *drunk-ard*, *slugg-ard*,
or } *bragg-art*.

***art**, }
***er**, as *writ-er*, *do-er*.

***ster**, as *game-ster*, *spin-ster*.

***an** or } as *public-an*, *pag-an*.

***tane**, } as *hum-ane*.

***ain**, as *capt-ain*, *chapl-ain*.

***en**, as *heath-en*.

†on, as surge-on.
 †ant, as occup-ant, ten-ant.
 †ate, as advoc-ate, deleg-ate.
 †ary, as mission-ary, libr-ary.
 †ent, as ag-ent.

†or, as auth-or, inspect-or.
 †ee, as trust-ee, legat-ee.
 †eer, as mutin-eer, auction-eer.
 †ic, as mechan-ic, crit-ic.
 †ist, as botan-ist, bapt-ist.

2. Denoting state of being, or quality, or order.

*dom, as king-dom, free-dom,
 martyr-dom.
 *hood, as man-hood, child-hood,
 boy-hood.
 *ness, as dear-ness, good-ness,
 dark-ness.
 *red, as kind-red, hat-red.
 *ship } as friend-ship, wor-
 } ship, court-ship.
 *scape, } as land-scape.
 *th, as wid-th, streng-th, four-th.
 †acy, as conspir-acy, accur-acy.
 †ance } as abund-ance, fragr-
 } ance.
 †ancy, } as const-ancy, inf-ancy.
 †ce or ice, gra-ce, just-ice.

†ence, as penit-ence, excell-ence.
 or †ency, as leni-ency, dec-ency.
 †ment, as nourish-ment, orna-
 ment.
 †tion, as na-tion, modera-tion,
 or †ion, as tens-ion, miss-ion.
 †tude, as grati-tude, multi-tude.
 †ity or ty, as hones-ty, royal-ty,
 qual-ity.
 †ure, as verd-ure, pleas-ure,
 rapt-ure.
 †y, as victor-y, flatter-y.
 †age, as parent-age, foli-age.
 †our or uor, as hon-our, lang-uor.
 †ism, as bapt-ism, patriot-ism.
 †ster, as charac-ter.

3. Denoting littleness.

*en, as maid-en, chick-en.
 *kin, as lamb-kin, pip-kin.
 *let or } as rivu-let, stream-let,
 *et, } as eagl-et, flower-et.
 *ling, as dar-ling, duck-ling.
 *ock, as hill-ock, bull-ock.

*y or } as bab-y, Tomm-y.
 *le, } as lass-ie, dogg-ie.
 †cle, } as parti-cle.
 †cule, } as animal-cule.
 †ule, } as glob-ule.

4. Denoting rank, office, or state.

*dom, as duke-dom, king-dom.
 *ship, as steward-ship, master-
 ship.

*ric, as bishop-ric.
 †ate, as cur-ate, leg-ate.
 †cy, cura-cy, magistra-cy.

II.—AFFIXES FORMING ADJECTIVES.

1. Denoting full of, abounding in, having.

*ful, as delight-ful, plenti-ful.
 *some, as glad-some, whole-some.
 *y, as worth-y, guilt-y, wealth-y.
 †ical, as poet-ical, method-ical.
 †ish, as whit-ish, brown-ish.

†ive, as act-ive, talkat-ive.
 †ous or } as religi-ous, glori-ous.
 †ose, } as verb-ose, joc-ose.
 †ate, as compassion-ate, affec-
 tion-ate.

2. *Denoting of, or belonging to*

***ish**, as Brit-**ish**, fool-**ish**.
tal or **tial**, { as brid-**al**, patern-**al**,
 { as fil-**ial**. [reg-**al**.
tan or **tain**, { as Europe-**an**, cert-**ain**.
tar, as circul-**ar**, regul-**ar**,
 singul-**ar**.

tary, as milit-**ary**, necess-**ary**.
tid, as ferv-**id**, ac-**id**, tim-**id**.
tile, as juven-**ile**, infant-**ile**.
tine, as femin-**ine**, can-**ine**.
sic, { as publ-**ic**, class-**ic**,
 { arct-**ic**.
sical, { as botan-**ical**.

3. *Denoting may or can be.*

tible, as solu-**ble**, fee-**ble**.
table, as mov-**able**, ami-**able**.

tible, as aud-**ible**, vis-**ible**.
tile, as duct-**ile**, frag-**ile**.

4. *Denoting state of being, or making.*

tant or **tent**, { as abund-**ant**, verd-**ant**.
 { as preval-**ent**, abs-**ent**.

tate, priv-**ate**, deso-**late**.

5. *Denoting likeness.*

***like**, as child-**like**, war-**like**.
ly, as friend-**ly**, brother-**ly**.

***ish**, as fool-**ish**, child-**ish**.

6. *Denoting made of.*

***en**, as wood-**en**, gold-**en**.

***ey** or **y**, as clay-**ey**, wind-**y**.

7. *Denoting without.*

***less**, as hope-**less**, heart-**less**, guilt-**less**.

III.—AFFIXES FORMING VERBS.

Denoting to make.

***en**, as dark-**en**, length-**en**, fast-**en**.
tate, as regul-**ate**, complic-**ate**.
fy, as puri-**fy**, beauti-**fy**, sancti-**fy**

ish, as publ-**ish**, demol-**ish**, fin-**ish**
ise or **ize**, as equal-**ise**, civil-**ize**,
 author-**ize**.

IV.—AFFIXES FORMING ADVERBS.

1. *Denoting quality.*

ly, fierce-**ly**, just-**ly**.

2. *Denoting direction.*

***ward**, up-**ward**, home-**ward**.

*=English ending. †=Latin ending. ‡=French ending. §=Greek ending.

SCHEME OF PRONUNCIATION.

The sound symbols are as shown by the *italic* letters in the following words :—

Other consonants have their ordinary sounds.

māte	māt	fār	found	now	boy	raw	water
mēte or	meet	mēt	chair	king	game	jug	
pīne	pīn		shall	sit			
nōte	nōt	fōl	thing	there			
pūre	būd	ū = French "u"	zeal	zh, as in vision.			

* In many cases, where almost silent, represented by an (').

JOHN HEYWOOD, Excelsior Steam Printing and Bookbinding Works,
 Hulme Hall Road, Manchester.

New Books and New Editions, 1883.

ELEMENTARY FRENCH COURSE FOR

BEGINNERS. With Easy Idiomatic and Colloquial Sentences Daily Used in Conversation, and also Reading Exercises for Pronunciation. By PAUL BARBIER, Modern Language Master at the Manchester Grammar School, Examiner in the French Language and Literature to the Intermediate Education Board for Ireland, etc. New Edition; revised. F'cap. 8vo, 164pp., cloth. Price 1s. 6d.

FIRST GRADE GEOMETRY TEST PAPERS.

By W. SARGENT. Each Packet contains Forty-eight Papers. These Geometrical Tests are Copies of Sixteen Examination Papers recently set by the Science and Art Department. New Edition. Price 1s. in Wrapper.

GEOMETRY AND MENSURATION. Part I.

By W. J. BROWNE, M.A., London. Containing the First Book of Euclid, and Mensuration of Rectilinear Figures. Third edition; revised. F'cap. 8vo, 74pp., cloth. Price 6d.

"This is the first book of Euclid, followed by the mensuration of rectilinear figures. In the latter part are numerous simple exercises, in which the answers follow the questions."—*Educational Times*, August 1st, 1883.

"The first book of Euclid is here given much as usual, with some very useful geometrical exercises, and an application of geometrical principles to the various cases of mensuration."—*The Bookseller*, August 4th, 1883.

"The Euclid is clearly arranged, and the different parts of each proposition are distinguished by italics and otherwise. The mensuration is well illustrated by diagrams, and the exercises are numerous and suitable. The book is extremely cheap and well adapted for class use."—*The Schoolmaster*, August 3rd, 1883.

GEOMETRY AND MENSURATION. Part II.

By W. J. BROWNE, M.A., London. Containing the Second Book of Euclid, and Mensuration of the Circle, Zone, Ellipse, and Surfaces of Solids. F'cap. 8vo, 60pp., cloth. Price 6d.

GREAT STEPS FOR LITTLE SCHOLARS; OR,

GEOGRAPHY SIMPLIFIED, in Question and Answer, for the Use of Preparatory Schools. F'cap 8vo, 88pp., cloth. Price 1s.

"A very elementary book, in the form of a catechism, on the geography of the world. The 'Steps' which have been planned to meet the requirements of preparatory schools, contain about 400 questions and answers on the more important countries; and, for those who still prefer catechetical text-books, will be found useful."—*School Guardian*, June 30th, 1883.

"The 'Great Steps for Little Scholars' commends itself to us by its simplicity of arrangement and clear bold type. To the small fry it will be attractive externally, which is a point not to be missed by those who wish to make learning palatable."—*Manchester Weekly Post*, May 12th, 1883.

"Its arrangement is simplicity itself; and its large, bold type must undoubtedly make the task of grappling with it a considerably less fatiguing and disheartening one than those usual to the little scholar."—*Salford Weekly Chronicle*, June 30th, 1883.

New Books and New Editions, 1883.

JOHN HEYWOOD'S HOME LESSON BOOKS.

By ALFONZO GARDINER. In Seven Books, F^{cap}. 8vo. New Editions for Mundella Code, 1883.

The Special Features of the Series are—

I.—Perfect adaptation to all the requirements of the Mundella Code.

II.—Exceedingly simple and easy lessons for the earlier Standards.

III.—Systematic arrangement for 42 school weeks, thus ensuring that no part of the work is neglected.

Book I. for Standard I. Cloth 4d.	Book V. for Standard V.....Cloth 9d.
" II. " II. " 5d.	" VI. " VI..... " 9d.
" III. " III. " 6d.	" VII. " VII. <i>In the Press</i> .
" IV. " IV. " 8d.	

ANSWERS to the Arithmetical Exercises in each Book, 2d.

"A new edition of this well-known series, specially adapted to the new Code."—*The Bookseller*, May 4th, 1883.

"The pupil is provided with two hundred and ten exercises in scripture, poetry, arithmetic, English, geography, and map drawing, on the lines of the Code for 1883. The book before us is intended for the use of Standard V., and certainly contains a very wide selection of exercises well adapted for the purpose in view."—*The Schoolmaster*, May 26th, 1883.

"Arranged according to the Code of 1883, contains lessons in every subject for the forty-two weeks of the school year. . . . Tables bearing upon etymology, the working of practice sums, and useful weights and measures, are added in the form of an appendix."—*School Guardian*, June 9th, 1883.

"Great care and skill have been bestowed upon the preparation of this really useful book. Worked properly, according to the suggestions of the author, it will prove of immense benefit to both teacher and pupil. . . . It is admirably printed and bound"—*The Schoolmistress*, June 14th, 1883.

ONE HALFPENNY EACH.

JOHN HEYWOOD'S RECITATION CARDS.

Adapted to the requirements of the New Code. Well printed on stiff Cardboard.

No. 1.—Standard I. contains 'The Spring,' 'The First Grief,' 'Where to Walk,' and 'Good Night,' and 'Good Morning.'

No. 2.—Standard II. contains 'We are Seven' and 'The Voice of Spring,' with Explanatory Notes.

No. 3.—Standard III. contains 'The Miller of the Dee,' and 'The Graves of a Household,' with Explanatory Notes.

No. 4.—Standard III. contains 'Casabianca,' and the 'Homes of England,' with Explanatory Notes.

No. 5.—Standard IV. contains 'The Wreck of the Hesperus,' with Explanatory Notes.

"Seven packets of exercises, to suit the seven standards of the Mundella Code; carefully graduated, and with accurate answers."—*Educational Times*. August 1st, 1883.

JOHN HEYWOOD, Deansgate and Ridgefield, Manchester; and 11, Paternoster Buildings, London.

New Books and New Editions, 1883.

MENSURATION FOR SCHOOLS, INCLUDING

LAND SURVEYING. By W. J. BROWNE, M.A., London. With nearly 1,000 Exercises and Examples. F^{cap}. 8vo, 104pp. Price 1s.

ORIGIN OF THE WESTERN NATIONS AND

LANGUAGES, showing the Construction and Aim of Punic; Recovery of the Universal Language; Reconstruction of Phœnician Geography; Asiatic Source of the Dialects of Britain; Principal Emigrations from Asia; and Description of Scythian Society, with an Appendix, upon the Connection of Assyrian with the Languages of Western Europe and Gaelic with the Languages of Scythia. By CHARLES LASSALLE. Demy 8vo, 444pp., cloth, gilt lettered. Price 7s. 6d.

SCHOOL MANAGEMENT AND METHOD IN

THEORY AND PRACTICE. By JOHN J. PRINCE. Second Edition. F^{cap}. 8vo, 272pp., cloth, gilt lettered. Price 3s. 6d.

THE ELEMENTS OF PHYSIOGRAPHY, for the

Use of Science Classes and Elementary Middle-Class Schools. By JOHN J. PRINCE. Fourth Edition. F^{cap}. 8vo, 192pp., cloth. Price 1s. 6d.

"Contains a very large amount of information, expressed in a concise, intelligent manner, concerning everything connected with physical geography, and, to the student interested in that study, will prove a highly useful little text-book as well as a cheap one—a combination of merits which, as a rule, it is very difficult to find. The fact that the papers set at the Science and Art Department Examination for 1882 occur amongst those given at the end, and that the results of the *Challenger* expedition, and Mr. Proctor's theories respecting meteors, etc., are embodied in the text, prove that considerable care has been taken to bring the book up to date. We cordially recommend it."—*Practical Teacher*, March, 1883.

"To those who desire a thorough compendium to the science of Physiography at a very moderate price, this little book will be very welcome, and the fact that it has reached its fifth edition is a testimony that its worth and completeness have received very considerable appreciation. It has been prepared with especial reference to the syllabus for the elementary stage of Physiography recently issued by the Science and Art Department, and to those preparing for that test the actual papers set during the last four or five years (given at the end of the book) will be very valuable. . . . In this new and enlarged edition the book is well brought up to date, and the many valuable additions made to the appendix at the end make that feature of the treatise much more interesting and complete. The book deserves high commendation."—*The Governor*, March 10th, 1883.

"Is an exceedingly useful book for science students and the senior pupils in our schools. Indeed, we do not recollect to have seen before such a mass of accurate information in so small a compass."—*School Guardian*, March 17th, 1883.

"This little manual, which has already passed through five editions, deals at length with physics, chemical elements, geology, the crust of the earth, astronomical geography, and special subjects are treated and the book, well brought down to date. . . . appendix, many is an admirable 883.

JOHN HEYWOOD, Deansgate

Paternoster

